

This section describes the geomorphic provinces/bioregions, vegetation, wildlife, soils, hydrogeomorphic features, wetlands, special-status species, regulatory setting, and impacts that are expected related to biological resources. This section is based in part on the following documents, reports, and studies:

- *Fresno General Plan* (City of Fresno, 2014);
- *Draft Master Environmental Impact Report General Plan and Development Code Update, City of Fresno, Fresno County, California* (City of Fresno, 2014);
- *Fresno General Plan Public Review Draft Program Environmental Impact Report* (City of Fresno, 2020);
- *Fresno Municipal Code* (City of Fresno, 2007); and
- *Web Soil Survey* (NRCS, 2019).

One comment was received during the public review period or scoping meeting for the Notice of Preparation regarding this topic from the following: Cathy Caples (August 1, 2019). The portion of this comment letter which relates to this topic is addressed within this section. Full comments received are included in **Appendix A**.

3.4.1 ENVIRONMENTAL SETTING

GEOMORPHIC PROVINCE AND BIOREGION

The City of Fresno is located in the southern portion of the Great Valley Geomorphic Province of California. The Great Valley Province is a broad structural trough bounded by the tilted block of the Sierra Nevada on the east and the complexly folded and faulted Coast Ranges on the west. The Stanislaus River is located just north of the City. This is a tributary of the San Joaquin River, which drains the Great Valley Province into the San Joaquin Delta to the north, ultimately discharging into the San Francisco Bay to the northwest.

The City of Fresno is located within the San Joaquin Valley Bioregion, which is comprised of Kings County, most of Fresno, Kern, Merced, and Stanislaus counties, and portions of Madera, San Luis Obispo, and Tulare counties. The San Joaquin Valley Bioregion is the third most populous out of ten bioregions in the state, with an estimated 2 million people. The largest cities are Fresno, Bakersfield, Modesto, and Stockton. Interstate 5 and State Route (SR) 99 are the major north-south roads that run the entire length of the bioregion.

The bioregion is bordered on the west by the coastal mountain ranges. Its eastern boundary joins the southern two-thirds of the Sierra bioregion, which features Yosemite, Kings Canyon, and Sequoia National Parks. At its northern end, the San Joaquin Valley bioregion borders the southern end of the Sacramento Valley bioregion. To the west, south, and east, the bioregion extends to the edges of the valley floor.

Habitat in the bioregion includes vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannah. Historically, millions of acres of wetlands flourished in the bioregion, but stream diversions for irrigation dried all but about five percent.

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Remnants of the wetland habitats are protected in this bioregion in publicly owned parks, reserves, and wildlife areas. The bioregion is considered the state's top agricultural producing region with the abundance of fertile soil.

LOCAL SETTING

Location

The West Area Neighborhoods Specific Plan (also-known-as “Specific Plan” or “West Area” or “Plan Area”) encompasses approximately 7,077 acres (or a little more than 11 square miles) in the City of Fresno city limits and unincorporated Fresno County. Of the 11 square miles within the Plan Area, 6.9 square miles are in the city limits and 4.1 square miles are in the growth area. The Plan Area is triangular in shape and located west of SR 99. It is bounded on the south by W. Clinton Avenue, and to the west by Grantland and Garfield Avenues. The Plan Area includes the southwest portion of Highway City adjacent to SR 99.

Topography

The Plan Area is relatively flat with natural gentle slope near SR 99. The Plan Area topography ranges in elevation from approximately 283 to 315 feet above mean sea level.

Climate

The City of Fresno is located in the southern portion of the San Joaquin Valley, which has a Mediterranean climate that is subject to cool, wet winters (often blanketed with fog) and hot, dry summers. The average annual precipitation is approximately 13.81 inches. Precipitation occurs as rain most of which falls between the months of November through April, peaking in January at 2.85 inches. The average temperatures range from December lows of 37.5 F to July highs of 94.3 F.

Existing Uses

A significant amount of land in the Plan Area is farmland or rural residential lots with large, uneven, and underutilized/underdeveloped parcels. According to the State Department of Conservation, the Plan Area has approximately 3,070 acres of land that is classified as Urban and Built-Up, 2,357 acres of agricultural, and 1,650 acres of vacant, disturbed, or rural residential land.

Agricultural land is scattered throughout the Plan Area, but mainly in the southern, western, and southwestern portions of the Plan Area. Irrigation ditches are also located throughout the Plan Area near these active agricultural lands. Developed uses are mainly in the northern, eastern, southern, and southeastern portions of the Plan Area. Undeveloped vacant land previously used for agricultural uses is also scattered throughout the Plan Area.

Surrounding Uses

Surrounding land uses include SR 99, the unincorporated communities of Herndon, Highway City, and Muscatel, and incorporated areas of the City of Fresno to the north (including mostly industrial uses), incorporated areas of the City of Fresno to the east (also including mostly industrial uses), unincorporated Fresno County and incorporated areas of the City of Fresno to the south (including

farmland uses, rural residential uses, low density residential uses, and underutilized parcels) and unincorporated Fresno County to the west (including farmland and rural residential uses).

Vegetation

Most agricultural activity on-site and in the immediate vicinity has consisted of cultivation of various types of row crops. Non-cultivated portions of the Specific Plan Area are vegetated with various common non-native annual grassland species, such as ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), soft brome (*Bromus hordeaceus*), black mustard (*Brassica nigra*), and filaree (*Erodium cicutarium*). Trees are also scattered throughout the developed and undeveloped portions of the Specific Plan Area, most of which are ornamental landscaping trees or residual trees from agricultural land.

Wildlife

The developed areas in the Plan Area typically provide habitat for common species that are accustomed to human disturbance, such as California scrub-jay (*Aphelocoma californica*), American robin (*Turdus migratorius*), northern mockingbird (*Mimus polyglottos*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), raccoon (*Procyon lotor*), squirrel (*Sciurus* spp.), opossum (*Didelphis virginiana*), Norway rat (*Rattus norvegicus*), and house mouse (*Mus musculus*).

Opportunistic species that may occur in agricultural lands in the Plan Area include side-blotched lizard (*Uta stansburiana*), American crow (*Corvus brachyrhynchos*), California scrub-jay, yellow-billed magpie (*Pica nuttalli*), house finch, small mammals, and raptors that prey on them. The edges of fields and orchards where stands of weeds, blackberry brambles, and brush are left undisturbed may provide protective cover for wildlife and food for birds. Burrowing animals such as California ground squirrels and gophers may be actively discouraged because of damage these animals can cause to irrigation systems, although their presence may be more likely in fallow fields.

The vacant lots and areas previously used for agricultural uses in the Plan Area are typically comprised of disturbed annual grassland species such as ripgut brome (*Bromus diandrus*), wild oat (*Avena fatua*), soft brome (*Bromus hordeaceus*), black mustard (*Brassica nigra*), and filaree (*Erodium cicutarium*). Wildlife that may occur and forage in disturbed annual grasslands as described include desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Otospermophilus beecheyi*), deer mouse (*Peromyscus maniculatus*), western harvest mouse (*Reithrodontomys megalotis*), side-blotched lizard, western fence lizard (*Sceloporus occidentalis*), gopher snake (*Pituophis catenifer*), and southern pacific rattlesnake (*Crotalis oreganus helleri*). California horned larks (*Eremophila alpestris actia*) and burrowing owls (*Athene cunicularia*) may use disturbed grassland habitat for foraging and nesting, and red-tailed hawks (*Buteo jamaicensis*), Swainson's hawks (*Buteo swainsoni*), American kestrel (*Falco sparverius*), and common raven (*Corvus corax*) may soar over and forage in the grasslands, depending on the size and location of the habitat patch relative to other habitat types.

The irrigation ditches in the Plan Area associated with the agricultural uses appear to be largely devoid of riparian vegetation and are generally isolated, surrounded by agricultural fields, disturbed annual grasslands, parklands, or developed areas. The aquatic habitats may provide some limited

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habitat for wildlife such as waterfowl, red-winged blackbird (*Agelaius phoeniceus*), and western pond turtle (*Emys marmorata*). These habitats likely lack persistent emergent vegetation, but surrounding vegetation may include hydrophytic plants and grasses.

CALIFORNIA WILDLIFE HABITAT RELATIONSHIPS SYSTEM

The California Wildlife Habitat Relationships (CWHR) habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 non-vegetated.

Figure 3.4-1 shows the CWHR designations in the Plan Area. Table 3.4-1 summarizes the designations in the Plan Area.

TABLE 3.4-1: CWHR LAND COVER TYPES

LAND COVER TYPE	ACRES WITHIN THE PLAN AREA
Annual Grassland	132.17
Barren	34.41
Deciduous Orchard	2,083.69
Dryland Grain Crops	22.68
Evergreen Orchard	12.68
Irrigated Grain Crops	1.33
Irrigated Hayfield	382.62
Irrigated Row and Field Crops	872.82
Lacustrine	3.78
Pasture	11.79
Riverine	7.76
Urban	3,100.36
Vineyard	348.66

SOURCES: CALFIRE FVEG15_1, 2015; FRESNO COUNTY; CITY OF FRESNO. MAP DATE: JULY 25, 2019.

Below is a brief description of these CWHR habitats.

DEVELOPED COVER TYPES

Deciduous Orchards are typically open single species tree dominated habitats. Depending on the tree type and pruning methods they are usually low, bushy trees with an open understory to facilitate harvest. Trees range in height at maturity for many species from 15 to 30 feet, but may be 10 feet or less depending on the species. Crowns usually touch, and are usually in a linear pattern. Spacing between trees is uniform depending on desired spread of mature trees. The understory is usually composed of low-growing grasses, legumes, and other herbaceous plants, but may be managed to prevent understory growth totally or partially, such as along tree rows. Deciduous

orchards can be found on flat alluvial soils in the valley floors, in rolling foothill areas, or on relatively steep slopes. Though some deciduous orchards are nonirrigated, most are irrigated. Some flat soils are flood irrigated, but many deciduous orchards are sprinkler irrigated. Large numbers of orchards are irrigated by drip or trickle irrigation systems. Most deciduous orchards are in valley or foothill areas, with a few, such as, apples and pears, up to 3,000 feet elevation. Within the West Area, there are 2,083.69 acres of Deciduous Orchard habitat.

Evergreen Orchards are typically open single species tree dominated habitats. Depending on the tree type and pruning methods they are usually low, bushy trees with an open understory to facilitate harvest. Trees range in height at maturity for many species from 15 to 30 feet, but may be 10 feet or less depending on the species. Crowns often do not touch, and are usually in a linear pattern. Spacing between trees is uniform depending on desired spread of mature trees. The understory is usually composed of low-growing grasses, legumes, and other herbaceous plants, but may be managed to prevent understory growth totally or partially, such as along tree rows. Evergreen orchards can be found on flat alluvial soils in the valley floors, in rolling foothill areas, or on relatively steep slopes. All are irrigated. Some flat soils are flood irrigated, but most evergreen orchards are sprinkler irrigated. Large numbers of orchards are irrigated by drip or trickle irrigation systems. Most evergreen orchards are in valley or foothill areas. Except for olive, most evergreen orchard trees are not very frost tolerant. Within the West Area, there are 12.68 acres of Evergreen Orchard habitat.

Vineyards are composed of single species planted in rows, usually supported on wood and wire trellises. Vines are normally intertwined in the rows but open between rows. Rows under the vines are usually sprayed with herbicides to prevent growth of herbaceous plants. Between rows of vines, grasses and other herbaceous plants may be planted or allowed to grow as a cover crop to control erosion. Vineyards can be found on flat alluvial soils in the valley floors, in rolling foothill areas, or on relatively steep slopes. All are irrigated. Most vineyards are sprinkler irrigated. Large numbers of vineyards are irrigated by drip or trickle irrigation systems. Most vineyards are in valley or foothill areas. Within the West Area, there are 348.66 acres of Vineyard habitat.

Dryland Grain Crops are composed of vegetation in the dryland (nonirrigated) grain and seed crops habitat includes seed producing grasses, primarily barley, cereal rye, oats, and wheat. These seed and grain crops are annuals. They are usually planted by drilling in rows which produce solid stands, forming 100 percent canopy at maturity in good stands. They are normally planted in fall and harvested in spring. However, they may be planted in rotation with other irrigated crops and winter wheat or barley may be planted after harvest of a previous crop in the fall, dry farmed (during the wet winter and early spring months), and then harvested in late spring. Within the West Area, there are 22.68 acres of Dryland Grain Crop habitat.

Irrigated Grain Crops include a variety of sizes, shapes and growing patterns. Field corn can reach ten feet tall while dry beans are only several inches tall. Most irrigated grain and seed crops are grown in rows. Some may form 100 percent canopy while others may have significant bare areas between rows. All seed and grain crops are annuals. They are usually planted in spring and harvested in summer or fall. However, they may be planted in rotation with other irrigated crops and sometimes winter wheat or barley may be planted after harvest of a previous crop in the fall, dry

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farmed (during the wet winter and early spring months) or they may be irrigated, and then harvested in the late spring. Within the West Area, there are 1.33 acres of Irrigated Grain Crop habitat.

Irrigated Hayfield normally has a 2 to 6 months initial growing period, depending on climate, and soil, this habitat is dense, with nearly 100 percent cover. Average height is about 0.46 m. (1.5 feet) tall. Planted fields generally are monocultures (the same species or mixtures or a few species with similar structural properties). Structure changes to a lower stature following each harvest, grows up again and reverts to bare ground following plowing or discing. Plowing may occur annually, but is usually less often. Layering generally does not occur in this habitat. Unplanted "native" hay fields may contain short and tall patches. If not harvested for a year, they may develop a dense thatch of dead leaves between the canopy and the ground. Within the West Area, there are 382.62 acres of Irrigated Hayfield habitat.

Irrigated Row and Field Crops include a variety of sizes, shapes and growing patterns. Cotton and asparagus can be three or four feet tall while others may be a foot or less high. Most irrigated row and field crops are grown in rows. Some may form 100 percent canopy while others may have significant bare areas between rows. Most are annuals, while others, such as asparagus and strawberries are perennial. The annuals are usually planted in spring and harvested in summer or fall. However, they may be planted in rotation with other irrigated crops and sometimes winter wheat or barley may be planted after harvest of a previous crop in the fall, dry farmed (during the wet winter and early spring months), and then harvested in the late spring. In some areas of southern California three crops may be grown in a year. Within the West Area, there are 872.82 acres of Irrigated Row and Field Crop habitat.

Urban habitats are not limited to any particular physical setting. Three urban categories relevant to wildlife are distinguished: downtown, urban residential, and suburbia. The heavily-developed downtown is usually at the center, followed by concentric zones of urban residential and suburbs. There is a progression outward of decreasing development and increasing vegetative cover. Species richness and diversity is extremely low in the inner cover. The structure of urban vegetation varies, with five types of vegetative structure defined: tree grove, street strip, shade tree/lawn, lawn, and shrub cover. A distinguishing feature of the urban wildlife habitat is the mixture of native and exotic species. Within the West Area, there are 3,100.36 acres of Urban habitat.

HERBACEOUS COVER TYPES

Annual Grassland habitat occurs mostly on flat plains to gently rolling foothills. Climatic conditions are typically Mediterranean, with cool, wet winters and dry, hot summers. The length of the frost-free season averages 250 to 300 days. Annual precipitation is highest in northern California. Within the West Area, there are 132.17 acres of Annual Grassland habitat.

Pastures are planted on flat and gently rolling terrain. Flat terrain is irrigated by the border and check method of irrigation, except on sandy soils or where water supplies are limited. Pastures established on sandy soils or hills are sprinklered. Hilly lands also use wild flooding; that is, ditches that follow the grade along ridges and hillsides, where water is released at selected points along the ditch. Climate influences the length of the growing season. For example, pastures at higher

elevations or in the north have a shorter growing season. Within the West Area, there are 11.79 acres of Pasture habitat.

AQUATIC COVER TYPES

Riverine habitats can occur in association with many terrestrial habitats. Riverine habitats are found adjacent to many rivers and streams. Riverine habitats are also found contiguous to lacustrine and fresh emergent wetland habitats. This habitat requires intermittent or continually running water generally originating at some elevated source, such as a spring or lake, and flows downward at a rate relative to slope or gradient and the volume of surface runoff or discharge. Velocity generally declines at progressively lower altitudes, and the volume of water increases until the enlarged stream finally becomes sluggish. Over this transition from a rapid, surging stream to a slow, sluggish river, water temperature and turbidity will tend to increase, dissolved oxygen will decrease, and the bottom will change from rocky to muddy. Within the West Area, there are 7.76 acres of Riverine habitat.

Lacustrine habitats are inland depressions or dammed riverine channels containing standing water. Riverine habitats are found in association with any terrestrial habitats, riverine, and fresh emergent wetlands. Most permanent lacustrine systems support fish life; intermittent types usually do not. Within the West Area, there are 3.78 acres of Lacustrine habitat.

OTHER COVER TYPES

Barren habitat is defined by the absence of vegetation. Any habitat with <2% total vegetation cover by herbaceous, desert, or non-wildland species and <10% cover by tree or shrub species is defined this way. The physical settings for permanently barren habitat represent extreme environments for vegetation. An extremely hot or cold climate, a near-vertical slope, an impermeable substrate, constant disturbance by either human or natural forces, or a soil either lacking in organic matter or excessively saline can each contribute to a habitat being inhospitable to plants. Within the West Area, there are 34.41 acres of Barren habitat.

Soils

The U.S. Department of Agriculture (USDA)/Natural Resource Conservation Service (NRCS) Web Soil Survey indicates the presence of 12 soil types occurring within the Specific Plan Area. Table 3.4-2 identifies the soils found in the Specific Plan Area.

TABLE 3.4-2: USDA SOIL SERIES INFORMATION

NAME	ACRES IN PLAN AREA	PERCENT OF PLAN AREA
Exeter loam	215.7	3.1%
Exeter sandy loam	1,227.6	17.5%
Exeter sandy loam, shallow	150.2	2.1%
Hanford gravelly sandy loam	15.0	0.2%
Hanford sandy loam, benches	17.3	0.2%
Hesperia fine sandy loam, moderately deep	1.7	0.0%

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NAME	ACRES IN PLAN AREA	PERCENT OF PLAN AREA
Pollasky fine sandy loam, 2-9% slopes	2.6	0.0%
Pollasky sandy loam, 9-15% slopes	5.3	0.1%
San Joaquin loam, 0-3% slopes	213.4	3.0%
San Joaquin loam, shallow, 0-3% slopes	757.6	10.8%
San Joaquin sandy loam, 0-3% slopes, MLRA 17	1,523.4	21.7%
San Joaquin sandy loam, shallow, 0-3% slopes	2,872.8	41.0%

SOURCE: NRCS WEB SOIL SURVEY, 2019.

Exeter series. The Exeter series consists of moderately deep to a duripan, moderately well drained soils that formed in alluvium mainly from granitic sources. Exeter soils are on alluvial fans and stream terraces and have slopes of 0 to 9 percent. The mean annual precipitation is about 11 inches and the mean annual air temperature is about 64 degrees F. The Exeter series includes but is not limited to the 'Exeter loam', 'Exeter sandy loam', and the 'Exeter sandy loam, shallow' soils, each of which is present within the Plan Area.

Hanford series. The Hanford series consists of very deep, well drained soils that formed in moderately coarse textured alluvium dominantly from granite. Hanford soils are on stream bottoms, floodplains and alluvial fans and have slopes of 0 to 15 percent. The mean annual precipitation is about 12 inches and the mean annual air temperature is about 63 degrees F. The Hanford series includes but is not limited to the 'Hanford gravelly sandy loam', and the 'Hanford sandy loam, benches' soils, each of which is present within the Plan Area.

Hesperia series. The Hesperia series consists of very deep, well drained soils that formed in alluvium derived primarily from granite and related rocks. Hesperia soils are on alluvial fans, valley plains and stream terraces and have slopes of 0 to 9 percent. The mean annual precipitation is about 8 inches and the mean annual air temperature is about 64 degrees F. The Hesperia series includes but is not limited to the 'Hesperia fine sandy loam, moderately deep' soil, which is present within the Plan Area.

Pollasky series. The Pollasky series consists of moderately deep, well drained, moderately coarse textured Regosols formed in the residuum from softly to moderately consolidated arkosic sediments. They occur on undulating to steep dissected terraces under annual grasses and forbs. They have brown, slightly acid sandy loam A horizons and pale brown to yellowish brown, slightly acid to neutral, sandy loam C horizons abruptly overlying consolidated granitic sediments. Pollasky soils occur at elevations below 500 feet to semiarid mesothermal climate having a mean annual precipitation ranging from about 9 to 16 inches with hot, dry summers and cool, moist winters. The Pollasky series is mapped along the eastern edge of the San Joaquin Valley of California where it is moderately extensive. Used as annual range and dry farmed small grain, usually barley, with limited sprinkler irrigated pasture.

San Joaquin series. The San Joaquin series consists of moderately deep to a duripan, well and moderately well drained soils that formed in alluvium derived from mixed but dominantly granitic rock sources. They are on undulating low terraces with slopes of 0 to 9 percent. The mean annual

precipitation is about 15 inches and the mean annual temperature is about 61 degrees F. The San Joaquin series includes but is not limited to the 'San Joaquin loam, 0-3% slopes', San Joaquin loam, shallow, 0-3% slopes', 'San Joaquin sandy loam, 0-3% slopes, MRLA 17', and 'San Joaquin sandy loam, shallow, 0-3% slopes' soils, each of which is present within the Plan Area.

Hydrogeomorphic Features

Fresno County is located in the San Joaquin River watershed. The San Joaquin River is about 300 miles long. It begins in the Sierra Nevada mountain range on California's eastern border. The river runs down the western slope of the Sierra and flows roughly northwest through the Central Valley, to where it meets the Sacramento River at the Sacramento-San Joaquin Delta, a 1,000-square-mile maze of channels and islands that drains more than 40 percent of the state's lands (SJRG 2013).

The Fresno Metropolitan Flood Control District (FMFCD) has primary responsibility for managing the local stormwater flows for the City, as well as a large area beyond the City's boundaries. The City's stormwater drains to urban stormwater basins, where it is retained for groundwater recharge or pumped to local irrigation canals owned by Fresno Irrigation District (FID) and then conveyed away from the municipal area.

The City of Fresno is located in the alluvial fans of numerous foothill streams and creeks that drain the western slope of the Sierra Nevada foothills. These streams include Big Dry Creek, Alluvial Drain, Pup Creek, Dog Creek, Redbank Creek, Mud Creek, and Fancher Creek. The City has hot dry summers and cool mild winters, with temperatures of mid-90°F in the summer and 60°F in the winter. The precipitation averages 11 inches per year and occurs almost entirely in the fall, winter, and spring.

Regionally, the City is protected by the U.S. Army Corps of Engineers' (Corps) Redbank-Fancher Creeks Flood Control Project. This project includes dams, detention basins, and levees designed to control upstream flood flows to approximately the 200-year storm event. Major facilities of this project include levee systems, the Big Dry Creek, Fancher Creek, and Redbank Creek dams and reservoirs, and the Alluvial Drain, Redbank Creek, Pup Creek, Fancher Creek, Big Dry Creek, Pup Creek Enterprise, and Dry Creek Extension detention basins.

Locally, the FMFCD drainage system consists of approximately 680 miles of pipeline and more than 150 stormwater retention basins. The storm drainage pipeline system is designed to accept the peak flow rate of runoff from a two-year intensity storm event (a storm that has a 50 percent probability of occurring in any given year). When storm events occur that exceed the two-year intensity, ponding begins to occur in the streets until the pipeline system can remove the water. In the event of larger storms, "major storm breakover", the FMFCD has planned for streets or other conveyance to move the excess runoff to the basins. The FMFCD facilities in the Plan Area are shown in Figure 3.9-2 in Section 3.9, Hydrology and Water Quality.

The drainage system discharges to a system of irrigation canals, creeks, and the San Joaquin River, but is designed to retain and infiltrate as much runoff as possible into the underlying groundwater aquifer. The local drainage service area is subdivided into over 160 drainage areas, most of which drain to a retention basin. Drainage channels within the Plan Area include:

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- East Branch Victoria Canal
- Epstein Canal
- Herndon Canal
- Minor Thornton Ditch
- Silvia Ditch
- Teague School Canal
- Tracy Ditch
- West Branch Victoria Canal
- Wheaton Ditch
- Austin Ditch

The Plan Area is drained by 15 drainage watersheds, six of which are fully within the Plan Area, and nine of which drain to areas immediately south or west of the Plan Area. There are seven existing retention basins within the Plan Area and an additional five that serve the Plan Area. An additional basin is planned to serve the drainage shed in the far southwestern corner of the Plan Area.

SPECIAL-STATUS SPECIES

The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDDB), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants, and the U.S. Fish and Wildlife Service's (USFWS) endangered and threatened species lists. The background search was regional in scope and focused on the documented occurrences within a 12-quadrangle area (including the following U.S. Geological Survey [USGS] 7.5-minute quadrangle maps: Madera, Gregg, Lanes Bridge, Friant, Biola, Herndon, Fresno North, Clovis, Kerman, Kearney Park, Fresno South, and Malaga). Table 3.4-3 provides a list of special-status plants and Table 3.4-4 provides a list of special-status animals that are found in the regional vicinity. Figure 3.4-2 shows all occurrences within the 12-quadrangle area.

TABLE 3.4-3: SPECIAL-STATUS PLANT SPECIES WHICH MAY OCCUR IN SPECIFIC PLAN AREA

SPECIES	STATUS (FED./CA/ CNPS)	HABITAT AND BLOOMING PERIOD
California alkali grass <i>Puccinellia simplex</i>	--/--/1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Alkaline, vernal mesic. Sinks, flats, and lake margins. 1-915 m. March-May.
California jewelflower <i>Caulanthus californicus</i>	E/E/1B.1	Chenopod scrub, valley and foothill grassland, pinyon and juniper woodland. Sandy soils. 65-1860 m. February-May.
California satintail <i>Imperata brevifolia</i>	--/--/2B.1	Coastal scrub, chaparral, riparian scrub, mojavean desert scrub, meadows and seeps (alkali), riparian scrub. Mesic sites, alkali seeps, riparian areas. 3-1495 m. September- May.
caper-fruited tropidocarpum <i>Tropidocarpum capparideum</i>	--/--/1B.1	Valley and foothill grassland. Alkaline clay. 0-360 m. March-April.
dwarf downingia <i>Downingia pusilla</i>	--/--/2B.2	Valley and foothill grassland (mesic sites), vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. 1-490 m. March-May.
Greene's tuctoria <i>Tuctoria greenei</i>	E/R/1B.1	Vernal pool. Vernal pools in open grasslands. 25-1325 m. May-July.
hairy Orcutt grass <i>Orcuttia pilosa</i>	E/E/1B.1	Vernal pools. 25-125 m. May-September.
Hartweg's golden sunburst <i>Pseudobahia bahiifolia</i>	E/E/1B.1	Valley and foothill grassland, cismontane woodland. Clay soils, often acidic. Predominantly on the northern slopes of knolls, but also along shady creeks or near vernal pools. 60-170 m. March-April.
heartscale <i>Atriplex cordulata</i> var. <i>cordulata</i>	--/--/1B.2	Saline or alkaline soils, chenopod scrub, meadows and seeps, valley and foothill grassland (sandy). April-October.
Hoover's calycadenia <i>Calycadenia hooveri</i>	--/--/1B.3	Cismontane woodland, valley and foothill grassland. On exposed, rocky, barren soil. 60-260 m. July-September.
lesser saltscale <i>Atriplex minuscula</i>	--/--/1B.1	Chenopod scrub, playas, valley and foothill grassland. In alkali sink and grassland in sandy, alkaline soils. 0-225 m. May-October.
Madera leptosiphon <i>Leptosiphon serrulatus</i>	--/--/1B.2	Cismontane woodland, lower montane coniferous forest. Dry slopes; often on decomposed granite in woodland. 80-1645 m. April-May.
palmate-bracted bird's-beak <i>Chloropyron palmatum</i>	E/E/1B.1	Chenopod scrub, valley and foothill grassland. Usually on Pescadero silty clay which is alkaline, with <i>Distichlis</i> , <i>Frankenia</i> , etc. 5-155 m. May-October.
recurved larkspur <i>Delphinium recurvatum</i>	--/--/1B.2	Chenopod scrub, valley and foothill grassland, cismontane woodland. On alkaline soils; often in valley saltbush or valley chenopod scrub. 3-790 m. March-June.
San Joaquin Valley Orcutt grass <i>Orcuttia inaequalis</i>	T/E/1B.1	Vernal pool. 10-755 m. April-September.

<i>SPECIES</i>	<i>STATUS (FED./CA/ CNPS)</i>	<i>HABITAT AND BLOOMING PERIOD</i>
Sanford's arrowhead <i>Sagittaria sanfordii</i>	--/--/1B.2	Marshes and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0-605 m. May-October (November).
spiny-sepaled button-celery <i>Eryngium spinosepalum</i>	--/--/1B.2	Vernal pools, valley and foothill grassland. Some sites on clay soil of granitic origin; vernal pools, within grassland. 15-1270 m. April-June.
succulent owl's-clover <i>Castilleja campestris</i> var. <i>succulenta</i>	T/E/1B.2	Vernal pools. Moist places, often in acidic soils. 20-705 m. (March) April-May.

NOTES:

FEDERAL

E = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

T = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.

STATE

E = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.

T = THREATENED UNDER THE FEDERAL CALIFORNIA ENDANGERED SPECIES ACT.

R = RARE UNDER THE CALIFORNIA ENDANGERED SPECIES ACT

CALIFORNIA NATIVE PLANT SOCIETY

1B = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA AND ELSEWHERE.

2 = RARE, THREATENED, OR ENDANGERED IN CALIFORNIA, BUT MORE COMMON ELSEWHERE.

3 = A REVIEW LIST – PLANTS ABOUT WHICH MORE INFORMATION IS NEEDED.

4 = PLANTS OF LIMITED DISTRIBUTION – A WATCH LIST

.1 = SERIOUSLY ENDANGERED IN CALIFORNIA (OVER 80% OF OCCURRENCES THREATENED-HIGH DEGREE AND IMMEDIACY OF THREAT).

.2 = FAIRLY ENDANGERED IN CALIFORNIA (20-80% OCCURRENCES THREATENED).

.3 = NOT VERY ENDANGERED IN CALIFORNIA (<20% OF OCCURRENCES THREATENED).

TABLE 3.4-4: SPECIAL-STATUS WILDLIFE AND FISH SPECIES WHICH MAY OCCUR IN SPECIFIC PLAN AREA

SPECIES	STATUS (FED/CA)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
INVERTEBRATES			
valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT/--	Stream side habitats below 3,000 feet throughout the Central Valley	Riparian and oak savanna habitats with elderberry shrubs; elderberries are the host plant.
California linderiella <i>Linderiella occidentalis</i>	--/--	It has been documented on most land forms, geologic formations and soil types supporting vernal pools in California, at altitudes as high as 1,150 meters (3,770 ft) above sea level. Most common in the Central Valley.	Seasonal pools in unplowed grasslands with old alluvial soils underlain by hardpan or in sandstone depressions. Water in the pools has very low alkalinity, conductivity, and total dissolved solids.
midvalley fairy shrimp <i>Branchinecta mesovallensis</i>	--/--	Extending from Stillwater Plain in Shasta County through most of the length of the Central Valley to Pixley in Tulare County and along the central Coast Range from northern Solano County to Pinnacles National Monument in San Benito County.	Vernal pools with tea-colored water, most commonly in grass or mud bottomed swales, or basalt flow depression pools in unplowed grasslands.
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT/--	Central Valley, central and south Coast Ranges from Tehama County to Santa Barbara County. Isolated populations also in Riverside County	Common in vernal pools; they are also found in sandstone rock outcrop pools.
AMPHIBIANS			
California tiger salamander <i>Ambystoma californiense</i>	FT/CT	Central Valley, including Sierra Nevada foothills, up to approximately 1,000 feet, and coastal region from Butte County south to northeastern San Luis Obispo County.	Central Valley DPS federally listed as threatened. Santa Barbara and Sonoma counties DPS federally listed as endangered. Need underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.
western spadefoot <i>Spea hammondi</i>	--/SSC	Found along the coast and coastal mountain ranges of California from Marin County to San Diego County and in the Sierra Nevada from Tehama County to Fresno County	Permanent and semi-permanent aquatic habitats, such as creeks and cold-water ponds, with emergent and submergent vegetation. May estivate in rodent burrows or cracks during dry periods.
BIRDS			
black-crowned night heron <i>Nycticorax nycticorax</i>	--/--	Throughout California	Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.

<i>SPECIES</i>	<i>STATUS (FED/CA)</i>	<i>GEOGRAPHIC DISTRIBUTION</i>	<i>HABITAT REQUIREMENTS</i>
burrowing owl <i>Athene cunicularia</i>	--/SSC	Lowlands throughout California, including the Central Valley, northeastern plateau, southeastern deserts, and coastal areas. Rare along south coast.	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.
California horned lark <i>Eremophila alpestris actia</i>	--/SSC	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills.	Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.
double-crested cormorant <i>Phalacrocorax auritus</i>	--/WL	Nonbreeding California habitat located along coastal California and the Central Valley. Migrates throughout California.	Colonial nester on coastal cliffs, offshore islands, and along lake margins in the interior of the state. Nests along coast on sequestered islets, usually on ground with sloping surface, or in tall trees along lake margins.
great egret <i>Ardea alba</i>	--/--	Throughout California	Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.
Least Bell's vireo <i>Vireo bellii pusillus</i>	FE/CE	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms.	Found below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.
snowy egret <i>Egretta thula</i>	--/--	Found mostly throughout North, Central, and South America. Breeds in coastal and inland wetlands. Their range has been limited over time due to habitat destruction and hunting. A migratory species that relocates from the United States and Canada to Mexico, Central America, South America, and the West Indies.	Prefer shallow water inlets for feeding such as salt-marsh pools, tidal channels, and bays. Mostly along coastal areas and islands. During winter time they migrate and roost in the mangroves of the Caribbean.
Swainson's hawk <i>Buteo swainsoni</i>	--/CT	Lower Sacramento and San Joaquin Valleys, the Klamath Basin, and Butte Valley. Highest nesting densities occur near Davis and Woodland, Yolo County.	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.

<i>SPECIES</i>	<i>STATUS (FED/CA)</i>	<i>GEOGRAPHIC DISTRIBUTION</i>	<i>HABITAT REQUIREMENTS</i>
tricolored blackbird <i>Agelaius tricolor</i>	--/C (SSC)	Permanent resident in the Central Valley from Butte County to Kern County. Breeds at scattered coastal locations from Marin County south to San Diego County; and at scattered locations in Lake, Sonoma, and Solano Counties. Rare nester in Siskiyou, Modoc, and Lassen Counties.	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.
western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FT/CE	Nests along the upper Sacramento, lower Feather, south fork of the Kern, Amargosa, Santa Ana, and Colorado Rivers	Wide, dense riparian forests with a thick understory of willows for nesting; sites with a dominant cottonwood overstory are preferred for foraging; may avoid valley oak riparian habitats where scrub jays are abundant
<i>FISH</i>			
hardhead <i>Mylopharodon conocephalus</i>	--/SSC	Tributary streams in the San Joaquin drainage; large tributary streams in the Sacramento River and the main stem	Resides in low to mid-elevation streams and prefer clear, deep pools and runs with slow velocities. They also occur in reservoirs.
<i>MAMMALS</i>			
American badger <i>Taxidea taxus</i>	--/SSC	Badgers are found primarily in the Great Plains region of North America. Badgers occur north through the central western Canadian provinces, in appropriate habitat throughout the western United States, and south throughout the mountainous areas of Mexico. They have expanded their range since the turn of the 20th century and are now found as far east as Ontario, Canada.	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.
Fresno kangaroo rat <i>Dipodomys nitratoides exilis</i>	FE/CE	Western Fresno County.	Alkali sink-open grassland habitats. Bare alkaline clay-based soils subject to seasonal inundation, with more friable soil mounds around shrubs and grasses.
Hoary bat <i>Lasiurus cinereus</i>	--/--	Occur in all 50 states. Rare in the eastern United States and northern Rockies. Found mainly in the Pacific Northwest and California, Arizona, and New Mexico.	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.

3.4

BIOLOGICAL RESOURCES

SPECIES	STATUS (FED/CA)	GEOGRAPHIC DISTRIBUTION	HABITAT REQUIREMENTS
Pallid Bat <i>Antrozous pallidus</i>	--/SSC	Associated with oak woodlands in coastal California.	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	FE/CT	Western Kern County, San Luis Obispo County, and Contra Costa County	Annual grasslands or grassy open stages with scattered shrubby vegetation. Need loose-textured sandy soils for burrowing, and suitable prey base.
San Joaquin Pocket Mouse <i>Perognathus inornatus</i>	--/--	Found in the southern Sacramento Valley, Salinas Valley, San Joaquin Valley and adjacent foothills, south to the Mojave Desert.	Grassland, oak savanna and arid scrubland. Associated with fine-textured, sandy, friable soils.
spotted bat <i>Euderma maculatum</i>	--/SSC	Distributed across large areas of western North America from southern British Columbia to the central Mexican state of Queretaro.	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.
western mastiff bat <i>Eumops perotis californicus</i>	--/SSC	Widespread in the southern United States and the northern part of Mexico. Occur at elevations to 2,600 meters.	Day roosts occur in crevices of cliffs and rocky canyons as well as trees. Roost areas need to be elevated and have a 2 meter drop off for take off area. Can live in chaparral, coastal and desert shrubs, and forests and wetland habitats.
REPTILES			
blunt-nosed leopard lizard <i>Gambelia sila</i>	FE/CE	Distributed across eastern California	Resident of sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seeks cover in mammal burrows, under shrubs or structures such as fence posts; they do not excavate their own burrows.
California glossy snake <i>Arizona elegans occidentalis</i>	--/SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California.	Generally reported from a range of scrub and grassland habitats, often with loose or sandy soils.
coast horned lizard <i>Phrynosoma blainvillii</i>	--/SSC	Found at elevations from sea level to 8,000 ft. (2,438 m).	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.

<i>SPECIES</i>	<i>STATUS (FED/CA)</i>	<i>GEOGRAPHIC DISTRIBUTION</i>	<i>HABITAT REQUIREMENTS</i>
northern California legless lizard <i>Anniella pulchra</i>	--/--	California legless lizards are found in California and Mexico. They are found from western central California (San Joaquin and the coastal regions), through northwestern Baja California, and as far south as Colonia Guerrero, Mexico.	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.
western pond turtle <i>Emys marmorata</i>	--/SSC	Occurs from the Oregon border of Del Norte and Siskiyou Counties south along the coast to San Francisco Bay, inland through the Sacramento Valley, and on the western slope of Sierra Nevada.	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.31 miles from water for egg-laying.

NOTES:

FEDERAL*E* = ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.*T* = THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.*PE* = PROPOSED FOR ENDANGERED UNDER THE FEDERAL ENDANGERED SPECIES ACT.*PT* = PROPOSED FOR THREATENED UNDER THE FEDERAL ENDANGERED SPECIES ACT.*C* = CANDIDATE SPECIES FOR LISTING UNDER THE FEDERAL ENDANGERED SPECIES ACT.*D* = DELISTED FROM FEDERAL LISTING STATUS.**STATE***E* = ENDANGERED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.*T* = THREATENED UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.*C* = CANDIDATE SPECIES FOR LISTING UNDER THE CALIFORNIA ENDANGERED SPECIES ACT.*FP* = FULLY PROTECTED UNDER THE CALIFORNIA FISH AND GAME CODE.*SSC* = SPECIES OF SPECIAL CONCERN IN CALIFORNIA.

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3.4.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the natural resources of the state and nation including the California Department of Fish and Wildlife (CDFW), USFWS, U.S. Army Corps of Engineers (USACE), and the Regional Water Quality Control Board (RWQCB). These agencies often respond to declines in the quantity of a particular habitat or plant or animal species by developing protective measures for those species or habitat type. The following is an overview of the federal, State and local regulations that are applicable to the proposed Specific Plan.

FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA), administered by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS), provides protection to plant and wildlife species listed as endangered or threatened. In general, USFWS has jurisdiction over terrestrial and fresh-water species, while NMFS has jurisdiction over ocean-going species.

Section 9 of FESA generally prohibits all persons from causing the "take" of any member of a listed species. (16 U.S.C. § 1538.) This prohibition applies mainly to animals; it only extends to plants in areas "under federal jurisdiction" and plants already protected under state law. (Id., subd. (a)(2)(B); see also *Northern Cal. River Watch v. Wilcox* (9th Cir. 2010) 620 F.3d 1075.)

"Take" is defined in statute as, "... to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." (16 U.S.C. § 1532(19).) Harass is defined in regulation as "...an intentional or negligent act or omission that creates the likelihood of injury to a listed species by annoying it to such an extent as to significantly disrupt normal behavior patterns that include, but are not limited to, breeding, feeding, or sheltering." (See 50 CFR § 17.3.) Harm is defined in regulation as "...significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering." (Id.) Despite the general prohibition against take, FESA in some circumstances permits "incidental take," which means take that is incidental to, but not the purpose of, the carrying out of an otherwise lawful activity. (16 U.S.C. § 1539(a).) Under section 10 of FESA, persons seeking permission to engage in actions that could result in such incidental take can obtain such permission through the approval of a habitat conservation plan (HCP) by either USFWS or NMFS. (16 U.S.C., § 1539(a).)

Proposed federal actions that would result in take of a federal-listed or proposed species require consultation with USFWS or NMFS under section 7 of FESA. (Id., § 1536.) The objective of consultation is to determine whether the proposed federal action would jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat. Where such an outcome would not occur, USFWS or NMFS must still impose reasonable and prudent measures to minimize the effects of the incidental taking. Where such an outcome could occur, USFWS or NMFS must

propose reasonable and prudent alternatives that, if implemented, would avoid such an outcome. (Id.)

Compliance with ESA can be achieved under Section 7 or 10 of FESA depending on the involvement of the federal government. Section 7 requires federal agencies to make a finding on all federal actions, including the approval by an agency of a public or private action, such as the issuance of a “404 permit” for filling wetlands by the U.S. Army Corps of Engineers (USACE), on the potential of the action to jeopardize the continued existence of any listed species impacted by the action or to result in the destruction or adverse modification of such species’ critical habitat. Provisions of Section 10 are implemented when there is no federal involvement in a project except compliance with FESA. A take not specifically allowed by federal permit under Section 7 or Section 10(a)(1)(B) of the FESA is subject to enforcement through civil or criminal proceedings under Section II of the FESA.

Migratory Bird Treaty Act

To kill, possess, or trade a migratory bird, bird part, nest, or egg is a violation of the Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., §703, Supp. I, 1989), unless it is in accordance with the regulations that have been set forth by the Secretary of the Interior.

Federal Bald and Golden Eagle Protection Act

The Federal Bald and Golden Eagle Protection Act provide regulations to protect bald and golden eagles as well as their nests and eggs from willful damage or injury.

Clean Water Act – Section 404

Section 404 of the CWA regulates all discharges of dredged or fill material into waters of the U.S. Discharges of fill material includes the placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)]. Waters of the U.S. include lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” [33 C.F.R. §328.3(b)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high-water mark (OHWM). The OHWM is defined by the USACE as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” [33 C.F.R. §328.3(e)].

Clean Water Act – Section 401

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant who is seeking a 404 permit to first obtain a water quality certification from the RWQCB. To obtain the water quality certification, the RWQCB must indicate that the proposed fill would be consistent with the standards set forth by the state.

Rivers and Harbors Act of 1899

The Rivers and Harbors Act prohibits the obstruction or alteration of any navigable water of the United States. The Act requires authorization from the USACE for any excavation or deposition of materials into these waters or for any work that could affect the course, location, condition, or capacity of rivers or harbors.

STATE

Fish and Game Code §2050-2097 - California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers a number of laws and programs designed to protect fish and wildlife resources. Principal of these is the California Endangered Species Act of 1984 (CESA Fish and Game Code Section 2050 et seq.), which regulates the listing and take of state endangered and threatened species, as well as candidate species. Under Section 2081 of CESA, CDFW may authorize take of an endangered and/or threatened species, or candidate species, by an incidental take permit or Memorandum of Understanding (MOU) for scientific, educational, or management purposes. In approving an incidental permit, CDFW must ensure, among other things, that "[t]he impacts of the authorized take shall be minimized and fully mitigated." Further, "[t]he measures required to meet this obligation shall be roughly proportional in extent to the impact of the authorized taking on the species. Where various measures are available to meet this obligation, the measures required shall maintain the applicant's objectives to the greatest extent possible. All required measures shall be capable of successful implementation." To be consistent with Federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the Act as threatened species, but did not do so for rare plants, as previously designated under the California Native Plant Protection Act (discussed below). Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Under State law, plant and animal species may be formally designated by official listing by the California Fish and Game Commission.

Fish and Game Code §2800-2835 – Natural Communities Conservation Planning Act

The Natural Communities Conservation Planning Act is set forth in Fish and Game Code Sections 2800–2835. The intent of the legislation is to provide for conservation planning as an officially recognized policy that can be used as a tool to eliminate conflicts between the protection of natural resources and the need for growth and development. In addition, the legislation promotes conservation planning as a means of coordination and cooperation among private interests, agencies, and landowners, and as a mechanism for multispecies and multi-habitat management and conservation. The development of Natural Community Conservation Plans (NCCPs) is an alternative to obtaining take authorization under Section 2081 of the Fish and Game Code.

Fish and Game Code §1900-1913 – California Native Plant Protection Act

In 1977 the State Legislature passed the Native Plant Protection Act (NPPA) in recognition of rare and endangered plants of the state. The intent of the law was to preserve, protect, and enhance

endangered plants. The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants. The NPPA includes provisions that prohibit the taking of plants designated as "rare" from the wild, and a salvage mandate for landowners, which requires notification of the CDFW 10 days in advance of approving a building site.

Fish and Game Code §3503, 3503.5, 3800 – Predatory Birds

Under the California Fish and Game Code, all predatory birds in the order Falconiformes or Strigiformes in California, generally called "raptors," are protected. The law indicates that it is unlawful to take, possess, or destroy the nest or eggs of any such bird unless it is in accordance with the code. Any activity that would cause a nest to be abandoned or cause a reduction or loss in a reproductive effort is considered a take. This generally includes construction activities.

Fish and Game Code §1601-1603 – Streambed Alteration

Under the California Fish and Game Code, CDFW has jurisdiction over any proposed activities that would divert or obstruct the natural flow or change the bed, channel, or bank of any lake or stream. Private landowners or project proponents must obtain a "Streambed Alteration Agreement" from CDFW prior to any alteration of a lake bed, stream channel, or their banks. Through this agreement, the CDFW may impose conditions to limit and fully mitigate impacts on fish and wildlife resources. These agreements are usually initiated through the local CDFW warden and will specify timing and construction conditions, including any mitigation necessary to protect fish and wildlife from impacts of the work.

Fish and Game Code §3511, 3513, 4700, and 5050 – Fully Protected Species

Fish and Game Code Sections 3511, 3513, 4700, and 5050 pertain to fully protected wildlife species (birds in Sections 3511 and 3513, mammals in Section 4700, and reptiles and amphibians in Section 5050) and strictly prohibit the take of these species. CDFW cannot issue a take permit for fully protected species, except under narrow conditions for scientific research or the protection of livestock, or if an NCCP has been adopted.

California Environmental Quality Act Guidelines § 15380 – Unlisted Species Worthy of Protection

The CEQA Guidelines provide that a species that is not listed on the federal or State endangered species list may nevertheless be considered rare or endangered if the species meets certain criteria. (CEQA Guidelines § 15380) Species that are not listed under FESA or CESA, but are otherwise eligible for listing (i.e. candidate, or proposed) may be protected by the local government until the opportunity to list the species arises for the responsible agency.

Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFW. Additionally, the California Native Plant Society (CNPS), a nongovernmental organization, maintains a list of plant species native to California that have low populations, limited distribution, or are otherwise threatened with extinction. This information is published in the

Inventory of Rare and Endangered Vascular Plants of California. List 1A contains plants that are believed to be extinct. List 1B contains plants that are rare, threatened, or endangered in California and elsewhere. List 2 contains plants that are rare, threatened, or endangered in California, but more numerous elsewhere.

California Wetlands Conservation Policy

In August 1993, the Governor announced the "California Wetlands Conservation Policy." The goals of the policy are to establish a framework and strategy that will:

- Ensure no overall net loss and to achieve a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property.
- Reduce procedural complexity in the administration of State and federal wetland conservation programs.
- Encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetland conservation and restoration.

The Governor also signed Executive Order W-59-93, which incorporates the goals and objectives contained in the new policy and directs the Resources Agency to establish an Interagency Task Force to direct and coordinate administration and implementation of the policy.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Wat. Code, § 13000 et seq.) is California's primary water quality control statute. But its protections extend to wetlands, and in some instances wetlands that are not subject to federal jurisdiction under the Clean Water Act. Under the Porter-Cologne Act definition, waters of the state are "any surface water or groundwater, including saline waters, within the boundaries of the state." (Wat. Code, § 13050[e].) Although all waters of the United States that are within the borders of California are also waters of the state, the reverse is not necessarily true. Therefore, California retains authority to regulate discharges of waste into any waters of the state, discharges to receiving waters more broadly than the CWA does.

Waters of the state fall under the jurisdiction of the nine Regional Water Quality Control Boards (RWQCBs). Under Porter-Cologne, each RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution. California Water Code Section 13260 requires any person discharging waste, or proposing to discharge waste, in any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements [WDRs]) with the applicable RWQCB. Construction activities that may discharge wastes into the waters of the state must meet the discharge control requirements of the Porter-Cologne Act.

Water Quality Control Plan for the Sacramento-San Joaquin River Basins

The Water Quality Control Plan for the Sacramento-San Joaquin River Basins (Basin Plan), adopted by the Central Valley RWQCB in 1998, identifies the beneficial uses of water bodies and provides water quality objectives and standards for waters of the Sacramento River and San Joaquin River Basins, including the Delta.

State and federal laws mandate the protection of designated “beneficial uses” of water bodies. State law defines beneficial uses as “domestic; municipal; agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves” (Water Code Section 13050[f]). Additional protected beneficial uses of the San Joaquin River include groundwater recharge and fresh water replenishment. Major issues and the general conditions of existing beneficial uses in the San Joaquin River are as follows:

- **Water Supply:** The San Joaquin River is not currently a source of municipal water supply for the City of Fresno and is not identified as a source for the proposed Project, although some farms in the region use the river as a source of water for irrigation. The City uses groundwater, water from the Kings River through an agreement with FID, and Class 1 water from the Central Valley Project through a water supply contract with the United States Bureau of Reclamation.
- **Agricultural Supply:** Extensive use is made of San Joaquin River and Delta waters for agricultural purposes. Annual water diversions from the Delta by the State Water Project (SWP) and the Central Valley Project (CVP) for agriculture are estimated to reach 4.3 million acre-feet (MAF) per year by 2030. In addition, about 2,000 privately owned agricultural water supply diversions are scattered throughout the Delta, generally consisting of riverside pumping stations.
- **Recreation:** Water-dependent recreation uses of the San Joaquin River and the Delta include swimming, wading, waterskiing, sport fishing, and a variety of other activities that involve contact with the water. Noncontact (water-enhanced) recreation uses include picnicking, camping, pleasure boating, hunting, bird watching, education, and aesthetic enjoyment.
- **Groundwater Recharge:** Water from the San Joaquin River and the Delta recharges the San Joaquin Valley groundwater basin. Recharge serves to maintain salt balance in the soil column, prevent saltwater intrusion into freshwater aquifers, and provide for water supplies. Groundwater is replenished through deep percolation of streamflow, precipitation, and applied irrigation water. Groundwater quality is generally adequate throughout the San Joaquin Valley and the Delta, although at shallow depths within the Delta the water is often saline and contains high levels of total dissolved solids (TDS) and dissolved minerals. Enforceable TDS standards do not exist for drinking water. The need for treatment generally depends on consumer acceptance.
- **Fish and Wildlife:** The San Joaquin River and the waterways of the Delta provide important habitat for a diverse variety of aquatic life and terrestrial wildlife. This includes temporary habitat and migration routes for anadromous and other migratory species, as well as permanent habitat for resident species. Fish dependent on the Delta as a migration corridor, nursery, or permanent residence include Chinook salmon, steelhead, delta smelt,

Sacramento splittail, striped bass, American shad, sturgeon, catfish, largemouth bass, and numerous other estuary and freshwater species. The amount and quality of water flowing through the Delta greatly influences the overall productivity of the area on an annual basis. A large assemblage of wildlife uses the Delta either seasonally or year round, including waterfowl; migratory and resident songbirds; mice, rabbits, and other small mammals; water dependent mammals, such as beaver and muskrat; and predators such as skunk, raccoon, northern harrier, and coyote.

LOCAL

Fresno General Plan

The Fresno General Plan establishes the following objective and policies directly related to biological resources:

PARKS, OPEN SPACE, AND SCHOOLS ELEMENT

Objective POSS-5: Provide for long-term preservation, enhancement, and enjoyment of plant, wildlife, and aquatic habitat.

Policy POSS-5-a: Habitat Area Acquisition. Support federal, State, and local programs to acquire significant habitat areas for permanent protection and/or conjunctive educational and recreational use.

Policy POSS-5-b: Habitat Conservation Plans. Participate in cooperative, multijurisdictional approaches for area-wide habitat conservation plans to preserve and protect rare, threatened, and endangered species.

Policy POSS-5-c: Buffers for Natural Areas. Require development projects, where appropriate and warranted, to incorporate natural features (such as ponds, hedgerows, and wooded strips) to serve as buffers for adjacent natural areas with high ecological value.

Policy POSS-5-d: Guidelines for Habitat Conservation. Establish guidelines for habitat conservation and mitigation programs, including:

- Protocols for the evaluation of a site's environmental setting and proposed design and operating parameters of proposed mitigation measures.
- Methodology for the analysis depiction of land to be acquired or set aside for mitigation activities.
- Parameters for specification of the types and sources of plant material used for any re-vegetation, irrigation requirements, and post-planting maintenance and other operational measures to ensure successful mitigation.
- Monitoring at an appropriate frequency by qualified personnel and reporting of data collected to permitting agencies.

Policy POSS-5-e: Pursue development of conjunctive habitat and recreational trail uses in flood control and drainage projects.

Policy POSS-5-f: Regional Mitigation and Habitat Restoration. Coordinate habitat restoration programs with responsible agencies to take advantage of opportunities for a coordinated regional mitigation program.

Fresno Municipal Code

Article 3, Street Trees and Parkways, of Chapter 13 of the Fresno Municipal Code contains the public tree policy, tree beautification and preservation regulations, and Special Tree List authorization. Section 13-302, Public Tree Policy, declares that the public interest and welfare require that the City maintain a program for the planting and preservation of trees on all public property in the city as a municipal affair in order to beautify the city, purify its air, and provide shade for its inhabitants. Section 13-304, Tree Beautification, establishes and defines the Master Tree Plan requirements, Parkway Tree requirements, and other requirements related to new and existing development and the provision of parkway trees. Section 13-305, Tree Preservation, outlines tree removal and maintenance requirements, tree permit conditions, and payment of fees in-lieu of replacing a removed tree. Lastly, Section 13-306, Special Tree List, outlines the Special Tree List requirements and tree removal requests for Special Trees:

The Director is authorized to develop and maintain a Special Tree List. Such list is intended to include those trees of special interest to the city, including, but not limited to, landmark trees or trees of outstanding size or beauty. The City Council may also designate trees on the Special Tree List by resolution. The Director shall give and encourage others to give such trees special treatment and care to retain and protect them.

The Public Works Director shall review all tree removal requests for special trees filed independent of a development application. The Director shall render his/her decision within thirty (30) days after the filing of the request. Any denial shall state the reasons for denial. The decision of the Director shall be mailed to the applicant and to all owners of record of the subject property on the same day the decision is made. In addition, the site or tree shall be posted with a sign by the Department for at least ten calendar days indicating the decision of the Director.

Decisions of the Public Works Director may be appealed to the City Council by the Councilmember of the district in which the project is located or by the Mayor, either on their own initiative or upon receiving a petition from any person. Appeals must be initiated by filing a letter with the Public Works Director. Such action shall require a statement of reasons for the appeal. Unless otherwise specified in a governing State or federal law, all appeals shall be filed with the Public Works Director in writing within 15 days of the date of the decision.

3.4.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

CEQA Guidelines Appendix G is a sample Initial Study checklist that includes number of factual inquiries related to the subject of biological resources, as it does on a whole series of additional environmental topics. Notably, lead agencies are under no obligation to use these inquiries in fashioning thresholds of significance on the subject of air quality impacts, or indeed on any subject addressed in the checklist. (*Save Cuyama Valley v. County of Santa Barbara* (2013) 213 Cal.App.4th 1059, 1068.) Rather, with few exceptions, “CEQA grants agencies discretion to develop their own thresholds of significance.” (*Ibid.*) Even so, it is a common practice for lead agencies to take the language from the inquiries set forth in Appendix G and to use that language in fashioning thresholds. The City has done so here, though it has exercised its discretion to modify the language of the Appendix G threshold addressing impacts to wetlands so that it applies not only to federally-protected wetlands, but also to wetlands that are protected under State law (the reach of which is sometimes broader than federal law).

Although CEQA generally gives agencies considerable discretion in fashioning significance thresholds, there are some thresholds that must, as a matter of law, be used by public agencies. Many of these relate to biological resources, and are found in CEQA Guidelines section 15065 (“Mandatory Findings of Significance”).

Finally, the City is aware that neither Appendix G nor section 15065 sets forth language directly addressing potential effects on birds of prey or nesting birds due to violation of laws (described earlier) intended to protect them. The City has therefore exercised its discretion to formulate a threshold to address this particular category of impact.

In light of the foregoing, for purposes of this EIR, a significant impact would occur if implementation of the Specific Plan would:

- Substantially reduce the habitat of a fish or wildlife species;
- Cause a fish or wildlife population to drop below self-sustaining levels;
- Threaten to eliminate a plant or animal community;
- Substantially reduce the number or restrict the range of an endangered, rare or threatened species;
- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally - or state- protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan;
- Result in the take or destruction of any nesting birds or birds of prey or the nest or eggs of such birds.

IMPACTS AND MITIGATION

Impact 3.4-1: Specific Plan implementation could directly or indirectly have a substantial adverse effect through habitat modifications or reductions, cause populations to drop below self-sustaining levels, substantially eliminate a community, or substantially reduce the number of, or restrict the range of, an endangered, rare or threatened species, including those considered candidate, sensitive, or special status in local or regional plans, policies, regulations, or by the CDFW or USFWS. (Less than Significant with Mitigation)

Approval of the proposed Specific Plan would not directly approve or entitle any development or infrastructure projects. However, implementation of the Specific Plan and Land Use Map would allow and facilitate future development in the Plan Area, which could result in adverse impacts to special-status plant and wildlife species, as well as sensitive natural habitat or wildlife movement corridors. Each are discussed below.

INVERTEBRATES

Special-status invertebrates that occur within the 12-quad for the Plan Area include: valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), California linderiella (*Linderiella occidentalis*), midvalley fairy shrimp (*Branchinecta mesovallensis*), and vernal pool fairy shrimp (*Branchinecta lynchi*). The Plan Area may contain suitable habitat, or more specifically, microhabitats, for these special-status invertebrate species. For example, elderberry shrubs, which are the host plant for valley elderberry longhorn beetle, are known to occur in various areas throughout the region, and may be located in the Plan Area on certain properties. It is noted that elderberry can establish itself in various areas, so the absence of this species at one point in time does not mean that it is absent in future years. Additionally, seasonally aquatic, or other aquatic areas (i.e. irrigation ditches or drainage swales) within the Plan Area could provide suitable habitat for some special status aquatic invertebrate species.

Subsequent development under the proposed Specific Plan could result in the direct loss of habitat areas associated with these special-status invertebrate species, since suitable habitat for these species does occur in the region, and can be found as a microhabitat. Additionally, indirect impacts

to special-status invertebrate species could occur with implementation of the Specific Plan. Indirect impacts could include habitat degradation as a result of impacts to water quality, increased human presence, and the loss of aquatic habitat. This is a **potentially significant** impact.

AMPHIBIANS & REPTILES

There are two special-status amphibian species and five special-status reptile species that are documented within the 12-quadrangle region for the Specific Plan Area, including: California tiger salamander (CTS) (*Ambystoma californiense*), western spadefoot (*Spea hammondi*), blunt-nosed leopard lizard (*Gambelia sila*), California glossy snake (*Arizona elegans occidentalis*), coast horned lizard (*Phrynosoma blainvillii*), northern California legless lizard (*Anniella pulchra*), and western pond turtle (*Emys marmorata*). There are two documented occurrences of CTS in the Specific Plan Area. The more recent occurrence was documented in February 2017. This occurrence was documented in the vicinity of N. Blythe Avenue approximately 0.2 miles northwest of the W. Austin Way junction, and 0.1 mile southeast of the W. Ashland Avenue junction. There are two polygons showing approximate locations – the northern polygon is the approximate location of the detection site for the CTS, and the southern polygon is the approximate location of the relocation site for CTS. For this occurrence, one CTS adult was found on the grounds of an apartment complex by a landscape maintenance crew. The animal was delivered to a local biologist who relocated the CTS to a nearby open space area. The open space area has alfalfa and grass, standing water in the springs, and many burrows present. According to the CNDDDB, the individual may have represented a remnant population that has lost too much habitat to be viable.

The second occurrence was documented in 1879. The occurrence was from the U.S. National Museum (#11794), and the Cornell University Museum of Vertebrates (#3017). The site is considered to be extirpated.

The developed and agricultural areas within the Specific Plan Area provide very limited to no potential for special status species reptile and amphibians listed above. The portions of the Plan Area with the highest potential for presence of any special status reptile or amphibian species are areas where aquatic habitat is present, such as irrigation ditches or retention basins. Additionally, there are numerous locations for refugia (debris, burrows, crevices, barns, sheds, etc.) within the Plan Area that could be used by migrating CTS.

Subsequent development under the proposed Specific Plan could result in the direct loss of habitat areas associated with these special-status reptile and amphibian species, since suitable habitat for these species does occur in the region. Additionally, indirect impacts to special-status reptile and amphibian species could occur with implementation of the Specific Plan. Indirect impacts could include habitat degradation as a result of impacts to water quality, increased human presence, and the loss of foraging habitat. This is a **potentially significant** impact.

FISH

There is one special-status fish species that is documented within the 12-quadrangle region for the Specific Plan Area: hardhead (*Mylopharodon conocephalus*). This species is not documented within

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the Specific Plan Area or vicinity. Based on habitat conditions and records searches, this fish species does not have the potential to be present within the Specific Plan Area. The proposed Specific Plan would not, directly or indirectly, have a substantial adverse effect on fish species through habitat modifications or reductions, cause populations to drop below self-sustaining levels, substantially eliminate a community, or substantially reduce the number of, or restrict the range of, an endangered, rare or threatened species, including those considered candidate, sensitive, or special status in local or regional plans, policies, regulations, or by the CDFW or USFWS. Therefore, impacts associated with special-status fish species would be **less than significant**.

BIRDS

There are ten special-status bird species that are documented within the 12-quadrangle region for the Specific Plan Area, including: black-crowned night heron (*Nycticorax nycticorax*), burrowing owl (*Athene cunicularia*), California horned lark (*Eremophila alpestris actia*), double-crested cormorant (*Phalacrocorax auratus*), great egret (*Ardea alba*), Least Bell's vireo (*Vireo bellii pusillus*), snowy egret (*Egretta thula*), Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). While none of these bird species have been documented in the Plan Area, it is highly likely that some of the aforementioned special-status bird species could regularly use or pass through the Specific Plan Area given their high mobility.

It is anticipated that the raptor species would frequent the site for foraging. There is limited to no potential for nesting in the agricultural and developed areas. The portions of the Plan Area with the highest potential for presence of any nesting birds are the more rural and vacant portions of the Plan Area. Most bird nesting would occur in trees located in these areas, with the exception of ground nesting species such as the burrowing owl.

Subsequent development under the proposed Specific Plan could result in the direct loss of habitat areas associated with these special-status bird species, since suitable habitat for these species does occur in the region. Additionally, indirect impacts to special-status bird species could occur with implementation of the Specific Plan. Indirect impacts could include habitat degradation, increased human presence, and the loss of foraging habitat. This is a **potentially significant** impact.

MAMMALS

There are eight special-status mammal species that are documented within the 12-quadrangle region for the Specific Plan Area, including: American badger (*Taxidea taxus*), Fresno kangaroo rat (*Dipodomys nitratooides exilis*), Hoary bat (*Lasiurus cinereus*), pallid bat (*Antrozous pallidus*), San Joaquin kit fox (*Vulpes macrotis mutica*), San Joaquin Pocket Mouse (*Perognathus inornatus*), spotted bat (*Euderma maculatum*), and western mastiff bat (*Eumops perotis californicus*). Fresno kangaroo rat, San Joaquin kit fox, and western mastiff bat have all been documented in the Specific Plan Area.

The agricultural areas within the Specific Plan Area provide very limited to no potential for special status species mammals, except for movement and foraging. The portion of the Plan Area with the highest potential for presence of special-status mammal species is along the vacant, undeveloped

land not used for active agriculture. These areas provide the most intact habitat available within the entirety of the Specific Plan Area, although the species could move and forage throughout much of the Plan Area.

Subsequent development under the proposed Specific Plan could result in the direct loss of habitat areas associated with these special-status mammal species, since suitable habitat for these species does occur in the region. Additionally, indirect impacts to special-status mammal species could occur with implementation of the Specific Plan. Indirect impacts could include habitat degradation, increased human presence, and the loss of foraging habitat. This is a ***potentially significant*** impact.

PLANTS

The search revealed documented occurrences of 18 special status plant species within the 12-quadrangle region for the Plan Area, as shown in Table 3.4-3.

The developed and agricultural areas within the Plan Area provide very limited to no potential for special status plant species. The tilled farmland is regularly disturbed and is planted for agricultural production and does not have any potential for these plants. The farmland fringe and irrigation ditches are the only areas within the agricultural land that have some potential for presence of native plants, although the potential for presence is very low. There exists the potential for future development or infrastructure improvements to encroach upon sensitive plant habitat within the Plan Area. Therefore, impacts associated with special-status plant species would be ***potentially significant***.

CONCLUSION

Construction and maintenance activities associated with future development projects under the proposed Specific Plan could result in the direct and indirect loss or indirect disturbance of special-status plant or wildlife (i.e. mammal, bird, amphibian, or reptile) species or their habitats that are known to occur, or have potential to occur, in the region. Impacts to special-status species or their habitat could result in a substantial reduction in local population size, lowered reproductive success, or habitat fragmentation. Significant impacts on special-status species associated with individual subsequent projects could include:

- increased mortality caused by higher numbers of automobiles in new areas of development;
- direct mortality from the collapse of underground burrows, resulting from soil compaction;
- direct mortality resulting from the movement of equipment and vehicles through construction areas;
- direct mortality resulting from removal of trees with active nests;
- direct mortality or loss of suitable habitat resulting from the trimming or removal of obligate host plants;
- direct mortality resulting from fill of wetlands features;
- loss of breeding and foraging habitat resulting from the filling of seasonal or perennial wetlands;

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- loss of breeding, foraging, and refuge habitat resulting from the permanent removal of riparian vegetation;
- loss of suitable habitat for vernal pool invertebrates resulting from the destruction or degradation of vernal pools or seasonal wetlands;
- abandoned eggs or young and subsequent nest failure for special-status nesting birds, including raptors, and other non-special-status migratory birds resulting from construction-related noises;
- loss or disturbance of rookeries and other colonial nests;
- loss of suitable foraging habitat for special-status raptor species;
- loss of migration corridors resulting from the construction of permanent structures or features; and
- impacts to fisheries/species associated with waterways.

Subsequent development projects will be required to comply with the City's General Plan and adopted Federal, State, and local regulations for the protection of special-status plants and animals, including habitat. The Specific Plan includes numerous policies intended to protect special-status plants and animals, including habitat, from adverse effects associated with future development and improvement projects. While future development of the Plan Area has the potential to result in significant impacts to protected special-status plants and animals, including habitat, the implementation of the policies listed below, as well as Federal and State regulations, would reduce impacts to these resources. Additionally, the mitigation measures included below would reduce this impact to a ***less than significant*** level.

MITIGATION MEASURE(S)

Mitigation Measure 3.4-1: Future project proponent(s) of development projects within the Specific Plan Area shall implement the following measure to avoid or minimize impacts on special-status invertebrate species:

- *Preconstruction surveys/habitat assessments for valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), California linderiella (*Linderiella occidentalis*), midvalley fairy shrimp (*Branchinecta mesovallensis*), and vernal pool fairy shrimp (*Branchinecta lynchi*) shall be conducted by a qualified biologist in all areas of suitable habitat within the project disturbance area.*
- *If valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*), California linderiella (*Linderiella occidentalis*), midvalley fairy shrimp (*Branchinecta mesovallensis*), or vernal pool fairy shrimp (*Branchinecta lynchi*), or their suitable habitat, is found during preconstruction surveys/habitat assessments within the disturbance area, activities within 200 feet of the find shall cease until appropriate measures have been completed, which may include an application for incidental take, or it is determined by the qualified biologist and City staff, in coordination with USFWS and CDFW, that the species will not be harmed by the activities. Any sightings or incidental take shall be reported to USFWS and CDFW immediately.*

- Construction personnel performing activities within aquatic habitats and other suitable habitats (i.e., elderberry shrubs) to be disturbed by project activities shall receive worker environmental awareness training from a qualified biologist to instruct workers to recognize the species, their habitats, and measures being implemented for its protection.

Mitigation Measure 3.4-2: Future project proponent(s) of development projects within the Specific Plan Area shall implement the following measure to avoid or minimize impacts on special-status amphibian and reptile species:

- Preconstruction surveys/habitat assessments for California tiger salamander (CTS) (*Ambystoma californiense*), western spadefoot (*Spea hammondi*), blunt-nosed leopard lizard (*Gambelia sila*), California glossy snake (*Arizona elegans occidentalis*), coast horned lizard (*Phrynosoma blainvillii*), northern California legless lizard (*Anniella pulchra*), and western pond turtle (*Emys marmorata*) shall be conducted by a qualified biologist in all areas of suitable habitat within the project disturbance area.
- If California tiger salamander (CTS) (*Ambystoma californiense*), western spadefoot (*Spea hammondi*), blunt-nosed leopard lizard (*Gambelia sila*), California glossy snake (*Arizona elegans occidentalis*), coast horned lizard (*Phrynosoma blainvillii*), northern California legless lizard (*Anniella pulchra*), or western pond turtle (*Emys marmorata*), or their suitable habitat, is found during preconstruction surveys/habitat assessments within the disturbance area, activities within 200 feet of the find shall cease until appropriate measures have been completed, which may include an application for incidental take, or it is determined by the qualified biologist and City staff, in coordination with USFWS and CDFW, that the species will not be harmed by the activities. Any sightings or incidental take shall be reported to USFWS and CDFW immediately.
- If western pond turtles are found during preconstruction surveys, a qualified biologist, with approval from CDFW, shall move the turtles to the nearest suitable habitat outside the area subject to project disturbance. The construction area shall be reinspected whenever a lapse in construction activity of 2 weeks or more has occurred.
- Construction personnel performing activities within aquatic habitats and adjacent suitable uplands to be disturbed by project activities shall receive worker environmental awareness training from a qualified biologist to instruct workers to recognize western pond turtle, their habitats, and measures being implemented for its protection.
- Construction personnel shall observe a 15-miles-per-hour speed limit on unpaved roads.

Mitigation Measure 3.4-3: Prior to any ground disturbance in areas which may support suitable breeding or nesting habitat for burrowing owl, a preconstruction survey of the parcel(s) to be developed shall be completed for burrowing owl in accordance with CDFW survey guidelines (California Department of Fish and Game 1995). On the parcel where the activity is proposed, the biologist shall survey the proposed disturbance footprint and a 500-foot radius from the perimeter of the proposed footprint to identify burrows and owls. Adjacent parcels under different land

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ownership need not be surveyed. Surveys shall take place near sunrise or sunset in accordance with CDFW guidelines. All burrows or burrowing owls shall be identified and mapped. Surveys shall take place no earlier than 30 days prior to construction. During the breeding season (February 1 to August 31), surveys shall document whether burrowing owls are nesting in or directly adjacent to disturbance areas. During the nonbreeding season (September 1 to January 31), surveys shall document whether burrowing owls are using habitat in or directly adjacent to any disturbance area. Survey results shall be valid only for the season (breeding or nonbreeding) during which the survey is conducted. If burrowing owls and/or suitable burrows are not discovered, then further mitigation is not necessary.

If burrowing owls are found during the breeding season (February 1 to August 31), the project proponent(s) shall avoid all nest sites that could be disturbed by project construction during the remainder of the breeding season or while the nest is occupied by adults or young. Avoidance shall include establishment of a non-disturbance buffer zone (described below). Construction may occur during the breeding season if a qualified biologist monitors the nest and determines that the birds have not begun egg-laying and incubation or that the juveniles from the occupied burrows have fledged. During the nonbreeding season (September 1 to January 31), the project proponent(s) shall avoid the owls and the burrows they are using, if possible. Avoidance shall include the establishment of a buffer zone (described below). During the breeding season, buffer zones of at least 250 feet in which no construction activities can occur shall be established around each occupied burrow (nest site). Buffer zones of 160 feet shall be established around each burrow being used during the nonbreeding season. The buffers shall be delineated by highly visible, temporary construction fencing.

If occupied burrows for burrowing owls cannot be avoided, passive relocation shall be implemented. Owls may be excluded from burrows in the immediate impact zone under an authorization from the CDFW. Such exclusion would be anticipated to include the installation of one-way doors in burrow entrances. These doors would be in place for 48 hours prior to excavation and monitored daily for 1 week to confirm that the owl has abandoned the burrow. Whenever possible, burrows must be excavated using hand tools and refilled to prevent reoccupation (California Department of Fish and Game 1995). Plastic tubing or a similar structure should be inserted in the tunnels during excavation to maintain an escape route for any owls inside the burrow. CDFW has the authority to authorize a variation to the above described exclusion method.

Mitigation Measure 3.4-4: *Prior to any ground disturbance conducted during the Swainson's hawk nesting season (March 15 to September 15) in areas which may support suitable habitat for Swainson Hawk, a USFWS/CDFW-approved biologist shall conduct a preconstruction survey for Swainson's hawk no earlier than 30 days prior to construction in order to determine whether occupied Swainson's hawk nests are located within 1,000 feet of the parcel(s) to be developed. If any potentially-occupied nests within 1,000 feet are off the project site, then their occupancy shall be determined by observation from public roads or by observations of Swainson's hawk activity (e.g. foraging) near the project site. A written summary of the survey results shall be submitted to the City of Fresno.*

During the Swainson's hawk nesting season (March 15 to September 15), construction activities within 1,000 feet of occupied nests or nests under construction shall be prohibited to prevent nest abandonment. If site-specific conditions, or the nature of the covered activity (e.g., steep topography, dense vegetation, and limited activities) indicate that a smaller buffer could be used, the City of Fresno may coordinate with CDFW/USFWS to determine the appropriate buffer size. If young fledge prior to September 15, construction activities could proceed normally. If the active nest site is shielded from view and noise from the project site by other development, topography, or other features, the project proponent(s) can apply to the City of Fresno for a waiver of this avoidance measure. Any waiver must also be approved by USFWS and CDFW. While nest is occupied, activities outside the buffer can take place.

All active nest trees shall be preserved on site, if feasible.

Mitigation Measure 3.4-5: Future project proponent(s) of development projects within the Specific Plan Area shall implement the following measure to avoid or minimize impacts to the black-crowned night heron (*Nycticorax nycticorax*), California horned lark (*Eremophila alpestris actia*), double-crested cormorant (*Phalacrocorax auratus*), great egret (*Ardea alba*), Least Bell's vireo (*Vireo bellii pusillus*), snowy egret (*Egretta thula*), tricolored blackbird (*Agelaius tricolor*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) that may occur on the site:

- Preconstruction surveys for active nests of black-crowned night heron (*Nycticorax nycticorax*), California horned lark (*Eremophila alpestris actia*), double-crested cormorant (*Phalacrocorax auratus*), great egret (*Ardea alba*), Least Bell's vireo (*Vireo bellii pusillus*), snowy egret (*Egretta thula*), tricolored blackbird (*Agelaius tricolor*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) shall be conducted by a qualified biologist in all areas of suitable habitat within 500 feet of project disturbance. Surveys shall be conducted within 14 days before commencement of any construction activities that occur during the nesting season (February 15 to August 31) in a given area.
- If any active nests, or behaviors indicating that active nests are present, are observed, appropriate buffers around the nest sites shall be determined by a qualified biologist to avoid nest failure resulting from project activities. The size of the buffer shall depend on the species, nest location, nest stage, and specific construction activities to be performed while the nest is active. The buffers may be adjusted if a qualified biologist determines it would not be likely to adversely affect the nest. If buffers are adjusted, monitoring will be conducted to confirm that project activity is not resulting in detectable adverse effects on nesting birds or their young. No project activity shall commence within the buffer areas until a qualified biologist has determined that the young have fledged or the nest site is otherwise no longer in use.

Mitigation Measure 3.4-6: Prior to any ground disturbance related to construction activities, a biologist shall conduct a preconstruction survey in areas which may support suitable breeding or denning habitat for San Joaquin kit fox. The survey shall establish the presence or absence of San Joaquin kit fox and/or suitable dens and evaluate use by kit foxes in accordance with USFWS survey guidelines (USFWS, 1999). Preconstruction surveys shall be conducted not earlier than 30 days from

commencing ground disturbance. On the parcel where activity is proposed, the biologist shall survey the proposed disturbance footprint and a 250-foot radius from the perimeter of the proposed footprint to identify San Joaquin kit fox and/or suitable dens. Adjacent parcels under different land ownership need not be surveyed. The status of all dens shall be determined and mapped. Written result of preconstruction surveys shall be submitted to the USFWS within 5 working days after survey completion and before start of ground disturbance. Concurrence by the USFWS is not required prior to initiation of construction activities. If San Joaquin kit fox and/or suitable dens are not discovered, then further mitigation is not necessary. If San Joaquin kit fox and/or suitable dens are identified in the survey area, the following measure shall be implemented.

If a San Joaquin kit fox den is discovered in the proposed development footprint, the den shall be monitored for 3 days by a CDFW/USFWS-approved biologist using a tracking medium or an infrared beam camera to determine if the den is currently being used. Unoccupied dens shall be destroyed immediately to prevent subsequent use. If a natal or pupping den is found, the USFWS and CDFW shall be notified immediately. The den shall not be destroyed until the pups and adults have vacated and then only after further consultation with USFWS and CDFW. If kit fox activity is observed at the den during the initial monitoring period, the den shall be monitored for an additional 5 consecutive days from the time of the first observation to allow any resident animals to move to another den while den use is actively discouraged. For dens other than natal or pupping dens, use of the den can be discouraged by partially plugging the entrance with soil such that any resident animal can easily escape. Once the den is determined to be unoccupied, it may be excavated under the direction of the biologist. Alternatively, if the animal is still present after 5 or more consecutive days of plugging and monitoring, the den may have to be excavated when, in the judgement of a biologist, it is temporarily vacant (i.e., during the animal's normal foraging activities).

Mitigation Measure 3.4-7: *Future project proponent(s) of development projects within the Specific Plan Area shall implement the following measures to avoid or minimize impacts on bats:*

- If removal of suitable roosting areas (i.e. buildings, trees, shrubs, bridges, etc.) must occur during the bat pupping season (April 1 through July 31), surveys for active maternity roosts shall be conducted by a qualified biologist. The surveys shall be conducted from dusk until dark.*
- If a special-status bat maternity roost is located, appropriate buffers around the roost sites shall be determined by a qualified biologist and implemented to avoid destruction or abandonment of the roost resulting from habitat removal or other project activities. The size of the buffer shall depend on the species, roost location, and specific construction activities to be performed in the vicinity. No project activity shall commence within the buffer areas until the end of the pupping season (August 1) or until a qualified biologist confirms the maternity roost is no longer active.*

Mitigation Measure 3.4-8: *Future project proponent(s) of development projects within the Specific Plan Area shall implement the following measure to avoid or minimize impacts to the American badger (*Taxidea taxus*), Fresno kangaroo rat (*Dipodomys nitratoide exilis*), and San Joaquin pocket mouse (*Perognathus inornatus*) that may occur on the site:*

- *Preconstruction surveys for indications of American badger (*Taxidea taxus*), Fresno kangaroo rat (*Dipodomys nitratooides exilis*), and San Joaquin pocket mouse (*Perognathus inornatus*) shall be conducted by a qualified biologist in all areas of suitable habitat within 500 feet of project disturbance. Surveys shall be conducted within 14 days before commencement of any construction activities that occur in a given area.*
- *If any active habitat areas, or behaviors indicating that active habitat is present, are observed, appropriate avoidance and mitigation measures, including but not limited to buffer areas, shall be required. The avoidance and mitigation measures shall be determined by the qualified biologist and implemented by the project proponent(s).*

Mitigation Measure 3.4-9: *Prior to construction in undisturbed areas, future project proponent(s) shall retain a biologist to perform plant surveys. The surveys shall be performed during the floristic season. If any of these plants are found during the surveys, the project proponent(s) shall contact the CNPS to obtain the appropriate avoidance and minimization measures. The project proponent(s) shall also implement the avoidance and minimization measures.*

SPECIFIC PLAN POLICIES THAT MITIGATE POTENTIAL IMPACTS

Policy IPR 3.5: *Utilize existing regulations and procedures, including but not limited to, the Development Code and the environmental review process, in order to conserve any existing or discovered wetland, riparian, or other sensitive habitats within the Plan Area.*

Policy IPR 3.6: *Where sensitive biological habitats have been identified or are discovered on or immediately adjacent to a project site, the project shall include appropriate mitigation measures determined by a qualified biologist.*

Policy IPR 3.7: *Coordinate with the California Department of Fish and Wildlife, Fresno County, and local watershed protection groups to identify potentially impacted aquatic habitat within the Plan Area and to develop management guidelines to be implemented by development, recreation, and other projects adjacent to ponds, ditches, canals, and other waterways.*

Impact 3.4-2: Specific Plan implementation has the potential to have substantial adverse effect on federally- or state-protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (Less than Significant with Mitigation)

The Plan Area does not contain any natural hydrologic features. The Plan Area contains an internal network of agricultural ditches along the margins of the farm fields. The ditches in proximity to active agricultural areas of the Plan Area are regularly maintained to control/collect irrigation runoff from the fields. These features are manmade and are fed only by local irrigation water during the irrigation season or rainfall during the winter/spring season.

The USACE has regulatory responsibility for navigable waters as well as "all other waters such as...streams ...wetlands...and natural ponds, the use, degradation or destruction of which could

affect interstate or foreign commerce" (33 CFR 323.4) under Section 404 of the CWA. A formal jurisdictional determination must be made by the USACE relative to protected wetlands and jurisdictional waters. The agricultural irrigation ditches are manmade and believed to solely function to drain upland agricultural runoff. As such, they are expected to be exempted from the USACE jurisdiction under the Irrigation Ditch Exemption pursuant to Federal Regulations (33 CFR 323.4(a)(3)). However, a final determination must be made by the USACE prior to any filling of these ditches for urban use.

CONCLUSION

Because the proposed Specific Plan is a planning document and thus, no physical changes will occur to the environment, adoption of the Specific Plan would not directly impact the environment. There is a reasonable chance that water features could be impacted throughout the buildout of the individual projects. The implementation of an individual project would require a detailed and site-specific review of the site to determine the presence or absence of water features. If water features are present and disturbance is required, Federal and State laws require measures to reduce, avoid, or compensate for impacts to these resources. The requirements of these Federal and State laws are implemented through the permit process. These requirements are also included in Mitigation Measures 3.4-10 and 3.4-11.

Subsequent development projects will be required to comply with the City's General Plan and adopted Federal, State, and local regulations for the protection of sensitive natural communities, including protected wetlands. The Specific Plan includes numerous policies and actions intended to protect wetlands and waters of the U.S. from adverse effects associated with future development and improvement projects. While future development has the potential to result in significant impacts to protected water features, compliance with existing Federal and State regulations would reduce impacts to these resources. Mitigation measures included below ensure these regulations are followed. Additionally, implementation of Specific Plan Policies IPR 3.5 through IPR 3.7, as detailed below, would ensure that this impact is ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.4-10: *If a proposed project will result in the significant alteration or fill of a federally protected wetland, a formal wetland delineation conducted according to USACE accepted methodology would be required for each project to determine the extent of wetlands on a project site. The delineation shall be used to determine if federal permitting and mitigation strategy are required to reduce project impacts. Acquisition of permits from USACE for the fill of wetlands and USACE approval of a wetland mitigation plan would ensure a "no net loss" of wetland habitat within the Planning Area. Appropriate wetland mitigation/creation shall be implemented in a ratio according to the size of the impacted wetland.*

Mitigation Measure 3.4-11: *In addition to regulatory agency permitting, Best Management Practices identified from a list provided by the USACE shall be incorporated into the design and construction phase of the project to ensure that no pollutants or siltation drain into a federally protected wetland. Project design features such as fencing, appropriate drainage and incorporating*

detention basins shall assist in ensuring project-related impacts to wetland habitat are minimized to the greatest extent feasible.

SPECIFIC PLAN POLICIES

Policy IPR 3.5: *Utilize existing regulations and procedures, including but not limited to, the Development Code and the environmental review process, in order to conserve any existing or discovered wetland, riparian, or other sensitive habitats within the Plan Area.*

Policy IPR 3.6: *Where sensitive biological habitats have been identified or are discovered on or immediately adjacent to a project site, the project shall include appropriate mitigation measures determined by a qualified biologist.*

Policy IPR 3.7: *Coordinate with the California Department of Fish and Wildlife, Fresno County, and local watershed protection groups to identify potentially impacted aquatic habitat within the Plan Area and to develop management guidelines to be implemented by development, recreation, and other projects adjacent to ponds, ditches, canals, and other waterways.*

Impact 3.4-3: Specific Plan implementation would not have substantial adverse effects on riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. (Less than Significant with Mitigation)

The records search revealed the presence of the following sensitive natural communities within the 12-quadrangle region for the Specific Plan Area: Great Valley Mixed Riparian Forest, Northern Claypan Vernal Pool, Northern Hardpan Vernal Pool, Sycamore Alluvial Woodland. None of these community types are found in the Plan Area. Riparian habitat is located northwest of the northwestern corner of the Plan Area along the San Joaquin River; however, this riparian habitat is not found within the Plan Area. The rectangular parcel located closest to the River and associated riparian habitat is the site of the future Fresno Aquarium.

Subsequent development projects will be required to comply with the City's General Plan and adopted Federal, State, and local regulations for the protection of sensitive natural communities, including riparian habitat. The Specific Plan includes policies intended to protect sensitive natural communities, including riparian habitat, from adverse effects associated with future development and improvement projects. While future development has the potential to result in significant impacts to protected habitats, implementation of Specific Plan Policies IPR 3.5 and IPR 3.6 and Mitigation Measures 3.4-12 through 3.4-14, detailed below, would ensure that this impact is ***less than significant***.

MITIGATION MEASURE(S)

Mitigation Measure 3.4-12: *A pre-construction clearance survey shall be conducted by a qualified biologist to determine if a proposed project will result in the removal or impact to any riparian habitat and/or a special-status natural community with potential to occur in the Specific Plan Area,*

compensatory habitat-based mitigation shall be required to reduce project impacts. Compensatory mitigation must involve the preservation or restoration or the purchase of off-site mitigation credits for impacts to riparian habitat and/or a special-status natural community. Mitigation must be conducted in-kind or within an approved mitigation bank in the region. The specific mitigation ratio for habitat-based mitigation shall be determined through consultation with the appropriate agency (i.e., CDFW or USFWS) on a case-by-case basis. The project applicant/developer for a proposed project shall develop and implement appropriate mitigation regarding impacts on their respective jurisdictions.

Mitigation Measure 3.4-13: *A pre-construction clearance survey shall be conducted by a qualified biologist to determine if a proposed project will result in significant impacts to streambeds or waterways protected under Section 1600 of Fish and Wildlife Code and Section 404 of the CWA. The project applicant/developer for a proposed project shall consult with partner agencies such as CDFW and/or USACE to develop and implement appropriate mitigation regarding impacts on their respective jurisdictions, determination of mitigation strategy, and regulatory permitting to reduce impacts, as required for projects that remove riparian habitat and/or alter a streambed or waterway. The project applicant/developer shall implement mitigation as directed by the agency with jurisdiction over the particular impact identified.*

Mitigation Measure 3.4-14: *Prior to project approval, a pre-construction clearance survey shall be conducted by a qualified biologist to determine if a proposed project will result in project-related impacts to riparian habitat or a special-status natural community or if it may result in direct or incidental impacts to special-status species associated with riparian or wetland habitats. The project applicant/developer for a proposed project shall be obligated to address project-specific impacts to special-status species associated with riparian habitat through agency consultation, development of a mitigation strategy, and/or issuing incidental take permits for the specific special-status species, as determined by the CDFW and/or USFWS.*

SPECIFIC PLAN POLICIES

Policy IPR 3.5: *Utilize existing regulations and procedures, including but not limited to, the Development Code and the environmental review process, in order to conserve any existing or discovered wetland, riparian, or other sensitive habitats within the Plan Area.*

Policy IPR 3.6: *Where sensitive biological habitats have been identified or are discovered on or immediately adjacent to a project site, the project shall include appropriate mitigation measures determined by a qualified biologist.*

Impact 3.4-4: Specific Plan implementation would not interfere substantially with the movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites. (Less than Significant)

Habitat loss, fragmentation, and degradation resulting from land use changes or habitat conversion can alter the use and viability of wildlife movement corridors (i.e., linear habitats that naturally connect and provide passage between two or more otherwise disjunct larger habitats or habitat

fragments). Wildlife habitat corridors maintain connectivity for daily movement, travel, mate-seeking, and migration; plant propagation; genetic interchange; population movement in response to environmental change or natural disaster; and recolonization of habitats subject to local extirpation or removal. The suitability of a habitat as a wildlife movement corridor is related to, among other factors, the habitat corridor's dimensions (length and width), topography, vegetation, exposure to human influence, and the species in question.

Species utilize movement corridors in several ways. "Passage species" are those species that use corridors as thru-ways between outlying habitats. The habitat requirements for passage species are generally less than those for corridor dwellers. Passage species use corridors for brief durations, such as for seasonal migrations or movement within a home range. As such, movement corridors do not necessarily have to meet any of the habitat requirements necessary for a passage species everyday survival. "Corridor dwellers" are those species that have limited dispersal capabilities – a category that includes most plants, insects, reptiles, amphibians, small mammals, and birds – and use corridors for a greater length of time.

The CNDDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the Plan Area. There is a reasonable chance that movement corridors could be impacted throughout the buildout of the individual projects in the Plan Area. The agricultural areas are not migratory wildlife corridors, although some species may move through this area.

Subsequent development projects will be required to comply with the City's General Plan, proposed Specific Plan, and adopted Federal, State, and local regulations for the protection of movement corridors. The Specific Plan includes Policy IPR 3.6, which states, "Where sensitive biological habitats have been identified or are discovered on or immediately adjacent to a project site, the project shall include appropriate mitigation measures determined by a qualified biologist." While future development has the potential to result in significant impacts to protected movement corridors, the implementation of Policy IPR 3.6, as well as Federal and State regulations, would ensure impacts to these resources to a *less than significant* level.

Impact 3.4-5: Specific Plan implementation would not conflict with an adopted Habitat Conservation Plan or Natural Community Conservation Plan. (Less than Significant)

The Plan Area overlaps with areas that are covered by PG&E's San Joaquin Valley Operation and Maintenance Habitat Conservation Plan (HCP). The HCP covers PG&E's routine operations and maintenance activities, as well as minor new construction, on any PG&E gas and electrical transmission and distribution facilities, easements, private access routes, or lands owned by PG&E. The proposed Specific Plan would not be expected to conflict or interfere with the HCP activities. Future buildout of the Plan Area, however, would likely result in a need for PG&E gas and electrical transmission and distribution facilities to support new residential and other developed land uses not covered by the HCP; however, construction of PG&E gas and electrical transmission and distribution facilities in the Plan Area would be covered by General Plan Policies POSS-5-a through POSS-5-f, and the proposed mitigation measures described herein.

The Plan Area is also located in the planning area of the Recovery Plan for Upland Species of the San Joaquin Valley, which addresses recovery needs and goals for the San Joaquin kit fox, among other species. Project-level implementation of the General Plan Policies POSS-5-a through POSS-5-f, and Mitigation Measure 3.4-5 discussed in Impact 3.4-1, will reduce potential project impacts to the San Joaquin kit fox and other wildlife covered by the Recovery Plan and their associated habitat, and require consultation with the USFWS if take of federally-listed species would occur. Thus, with implementation of these measures, the proposed Specific Plan would not be expected to conflict with the goals of the Recovery Plan. The proposed Specific Plan would have a ***less than significant*** impact relative to this topic.

Impact 3.4-6: Specific Plan implementation would not conflict with local policies or ordinances protecting biological resources. (Less than Significant)

State law requires any decision by a city affecting land use and development to be consistent with its General Plan. This determination is ultimately made by the City Council. If an action, program or project is inconsistent with the General Plan, State law requires it be reconciled. This may involve modification to the action, program, or project, or amendment of the General Plan. Therefore, this impact discussion will evaluate the proposed projects' consistency with the Fresno General Plan as it related to biological resources. The evaluation will consider the proposed Plan's consistency with the adopted General Plan policies included within the Parks, Open Space, and Schools Element of the Fresno General Plan. This impact discussion also includes an evaluation of the Plan's consistency with the City of Fresno Municipal Code.

FRESNO GENERAL PLAN

The following discussion analyzes the project's consistency with the relevant policies of the City's General Plan.

Policy POSS-5-a: Habitat Area Acquisition. Support federal, State, and local programs to acquire significant habitat areas for permanent protection and/or conjunctive educational and recreational use.

The Plan Area does not contain significant habitat areas. It is noted, however, that the Specific Plan land use plan includes 248.4 acres of open space uses, including pocket parks, neighborhood parks, community parks, open space, and ponding basins. These open space uses could be used for educational and/or recreational uses. The proposed Specific Plan is consistent with this Policy.

Policy POSS-5-b: Habitat Conservation Plans. Participate in cooperative, multijurisdictional approaches for area-wide habitat conservation plans to preserve and protect rare, threatened, and endangered species.

As discussed in Impact 3.4-5, the Plan Area overlaps with areas that are covered by PG&E's San Joaquin Valley Operation and Maintenance HCP. The Plan Area is also located in the planning area of the Recovery Plan for Upland Species of the San Joaquin Valley, which addresses

recovery needs and goals for the San Joaquin kit fox, among other species. The proposed Specific Plan would participate in both plans, as applicable, and would not conflict with PG&E's San Joaquin Valley Operation and Maintenance HCP or the Recovery Plan for Upland Species of the San Joaquin Valley. The proposed Specific Plan is consistent with this Policy.

Policy POSS-5-c: Buffers for Natural Areas. Require development projects, where appropriate and warranted, to incorporate natural features (such as ponds, hedgerows, and wooded strips) to serve as buffers for adjacent natural areas with high ecological value.

The Plan Area does not contain areas with high ecological value. The San Joaquin River and associated riparian habitat, which has high ecological value, is located northwest of the northwestern corner of the Plan Area along the San Joaquin River; however, this riparian habitat is not found on-site. The rectangular parcel located closest to the River and associated riparian habitat is the site of the future Fresno Aquarium. The Aquarium would overlook the River but would be physically buffered from this natural area. The proposed Specific Plan is consistent with this Policy.

Policy POSS-5-d: Guidelines for Habitat Conservation. Establish guidelines for habitat conservation and mitigation programs, including:

- Protocols for the evaluation of a site's environmental setting and proposed design and operating parameters of proposed mitigation measures.
- Methodology for the analysis depiction of land to be acquired or set aside for mitigation activities.
- Parameters for specification of the types and sources of plant material used for any re-vegetation, irrigation requirements, and post-planting maintenance and other operational measures to ensure successful mitigation.
- Monitoring at an appropriate frequency by qualified personnel and reporting of data collected to permitting agencies.

As discussed above, the Specific Plan would not conflict with PG&E's San Joaquin Valley Operation and Maintenance HCP or the Recovery Plan for Upland Species of the San Joaquin Valley. The proposed Specific Plan is consistent with this Policy. The mitigation measures outlined throughout the above impact discussions include guidelines for future projects to implement in order to conserve habitat and mitigate potential impacts. The proposed Specific Plan is consistent with this Policy.

Policy POSS-5-e: Pursue development of conjunctive habitat and recreational trail uses in flood control and drainage projects.

The Specific Plan includes two policies which address flood protection and design. Policy IPR 2.9 states, "Plant locally appropriate, drought-tolerant landscaping and, where possible, incorporate designs that can contribute to groundwater recharge, flood protection, and reduced urban heat island effects." Policy LUH 5.1 states, "Update the Development Code so that when land proposed for urban development abuts active farmland, planned farmland, or rural

3.4 BIOLOGICAL RESOURCES

residential, the development project shall include and provide for the maintenance of one of the following design features to provide a rural/urban buffer:

- Provide landscaping and setbacks to fully obscure the new development's buildings and fences.
- Do not include fencing, or provide only see-through fencing no greater than four feet in height between the new development and the existing property.
- Provide open space such as edible gardens, landscaped walkways, or permanent on-site flood control/drainage facilities.
- Locate boundary streets between the new and existing developments."

These two Specific Plan policies supports conjunctive use of flood control facilities as recreational or open space amenities. The proposed Specific Plan is consistent with this Policy.

Policy POSS-5-f: Regional Mitigation and Habitat Restoration. Coordinate habitat restoration programs with responsible agencies to take advantage of opportunities for a coordinated regional mitigation program.

As discussed above, the Specific Plan would not conflict with PG&E's San Joaquin Valley Operation and Maintenance HCP or the Recovery Plan for Upland Species of the San Joaquin Valley. The proposed Specific Plan is consistent with this Policy. Additionally, the mitigation measures outlined throughout the above impact discussions include guidelines for future projects to implement in order to conserve habitat and mitigate potential impacts. The City will continue to coordinate habitat restoration programs with responsible agencies in order to take advantage of opportunities for a coordinated regional mitigation program. The proposed Specific Plan is consistent with this Policy.

FRESNO MUNICIPAL CODE

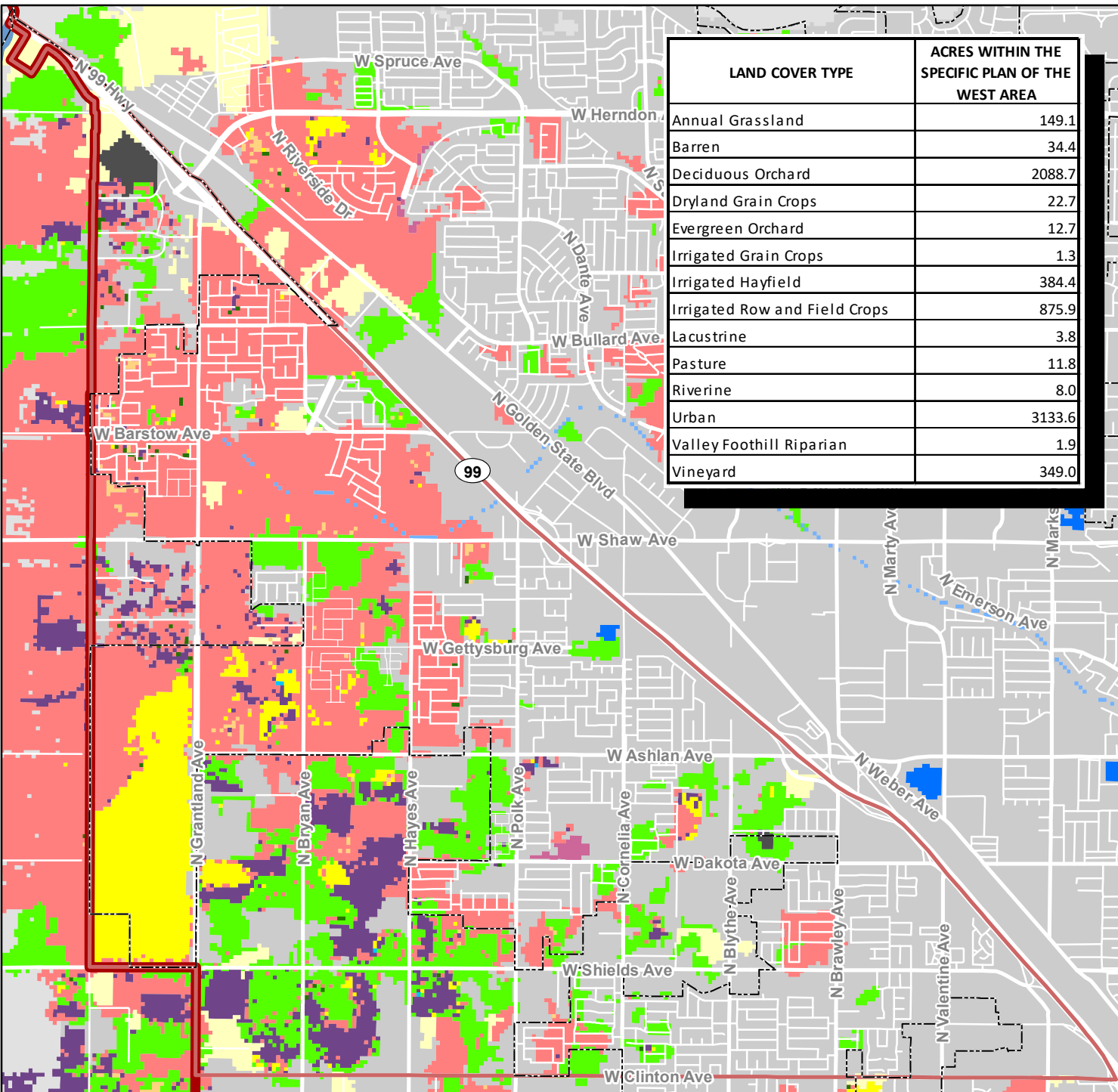
Article 3, Street Trees and Parkways, of Chapter 13 of the Fresno Municipal Code contains the public tree policy, tree beautification and preservation regulations, and Special Tree List authorization. Section 13-302, Public Tree Policy, declares that the public interest and welfare require that the city maintain a program for the planting and preservation of trees on all public property in the city as a municipal affair in order to beautify the city, purify its air, and provide shade for its inhabitants. Section 13-304, Tree Beautification, establishes and defines the Master Tree Plan requirements, Parkway Tree requirements, and other requirements related to new and existing development and the provision of parkway trees. Section 13-305, Tree Preservation, outlines tree removal and maintenance requirements, tree permit conditions, and payment of fees in-lieu of replacing a removed tree. Lastly, Section 13-306, Special Tree List, outlines the Special Tree List requirements and tree removal requests for Special Trees.

There are trees located throughout the Plan Area. Any removal of these trees would be required to comply with the provisions of the Fresno Municipal Code, including Article 3, Street Trees and Parkways, of Chapter 13. This is an existing standard and regulation that is enforced by the City of Fresno during the improvement/grading plan and/or building plan phase of a project.

CONCLUSION

The proposed Specific Plan would not conflict with local policies or ordinances protecting biological resources. The future project proponents would be required to comply with the provisions of the City's General Plan and Municipal Code. As demonstrated above, the proposed Specific Plan is generally consistent with the above relevant open space and conservation policies of the General Plan, as well as the City's Municipal Code. Overall, the proposed Specific Plan would have a ***less than significant*** impact relative to this topic.

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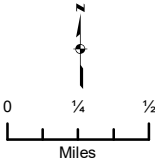


LAND COVER TYPE	ACRES WITHIN THE SPECIFIC PLAN OF THE WEST AREA
Annual Grassland	149.1
Barren	34.4
Deciduous Orchard	2088.7
Dryland Grain Crops	22.7
Evergreen Orchard	12.7
Irrigated Grain Crops	1.3
Irrigated Hayfield	384.4
Irrigated Row and Field Crops	875.9
Lacustrine	3.8
Pasture	11.8
Riverine	8.0
Urban	3133.6
Valley Foothill Riparian	1.9
Vineyard	349.0

**CITY OF FRESNO
SPECIFIC PLAN OF THE WEST AREA**

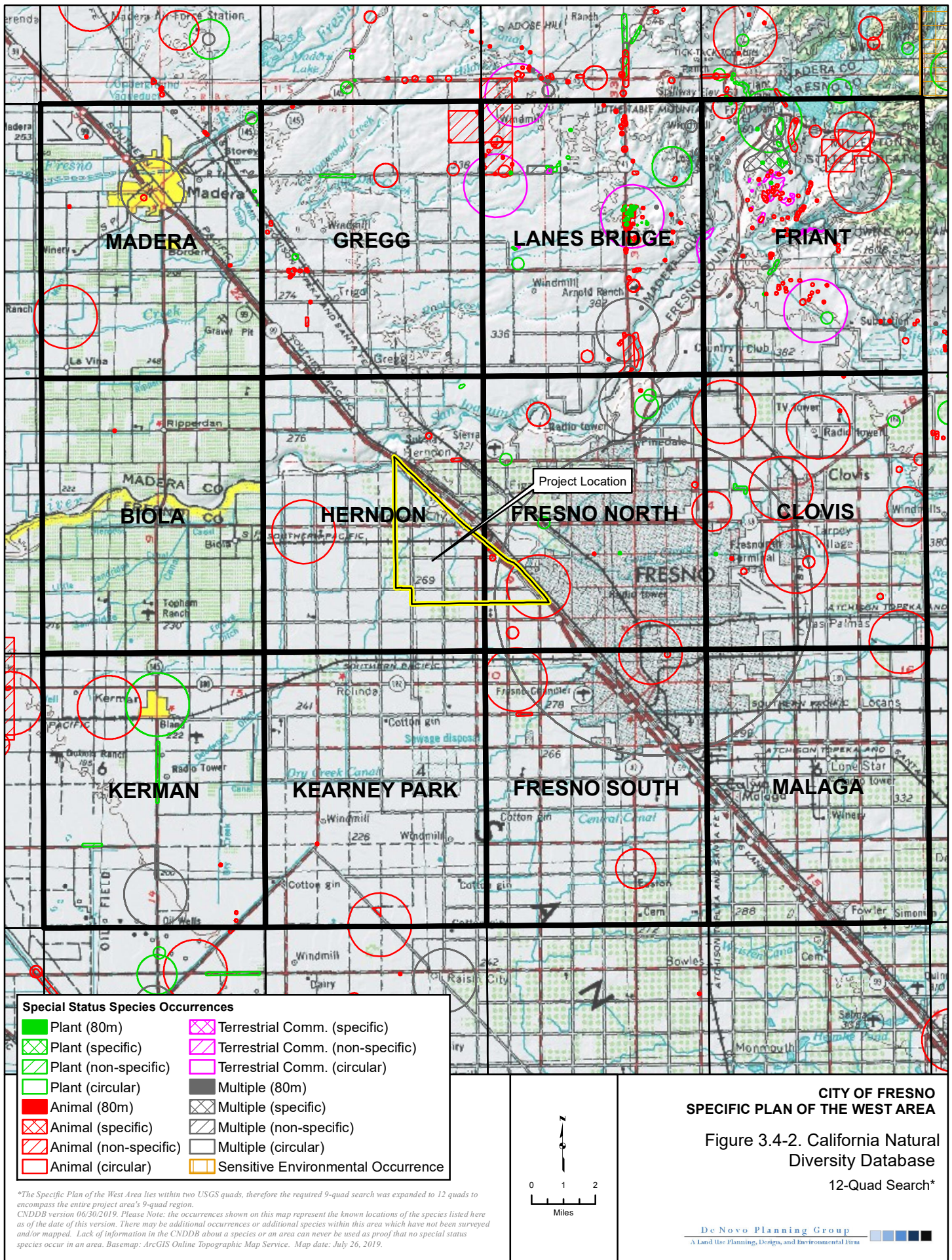
Figure 3.4-1. Cover Types

- BOUNDARIES**
- Specific Plan of the West
 - Fresno City Limits
 - Fresno Sphere of Influence
- LAND COVER TYPES**
- Annual Grassland
 - Barren
 - Deciduous Orchard
 - Dryland Grain Crops
 - Evergreen Orchard
 - Irrigated Grain Crops
 - Irrigated Hayfield
 - Irrigated Row and Field Crops
 - Lacustrine
 - Pasture
 - Riverine
 - Urban
 - Vineyard



Sources: CalFire FVEG15_1, 2015; Fresno County; City of Fresno. Map date: July 25, 2019. Revised: May 29, 2020; March 1, 2021.

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